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* NOTICES *

Summary

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(57) [Abstract] (******)
[Technical problem] Even if an obstacle arises on a conveyance way, the damage by this obstacle will be suppressed to the minimum.

[Means for Solution] While performing processing for making the size of a coin processing means 17 to discriminate a receptionist beam coin, a bill processing means 102 to discriminate the received bill, and the valuable value specified from the received record medium use it for a game A record-medium processing means 16 to discharge the aforementioned receptionist beam record medium outside based on formation of predetermined recovery conditions, The 1st passage 14 for carrying out mixture conveyance at the judgment hold section which classifies individually the equipment 3 for **********, and the coin, bill and record medium by which discharge was carried out [aforementioned], and holds them, The 2nd passage 100 for conveying a bill, and the 1st branch way 20 which connects the aforementioned 1st passage 14 so that the aforementioned discharge coin may join, the 2nd branch way 19 which connects the aforementioned 1st passage 14 so that the aforementioned discharge record medium may join the aforementioned 1st passage 14, and the 3rd branch way 104 which connects the aforementioned 2nd passage 100 so that the aforementioned discharge bill may join the aforementioned 2nd passage 100 — since — it changes

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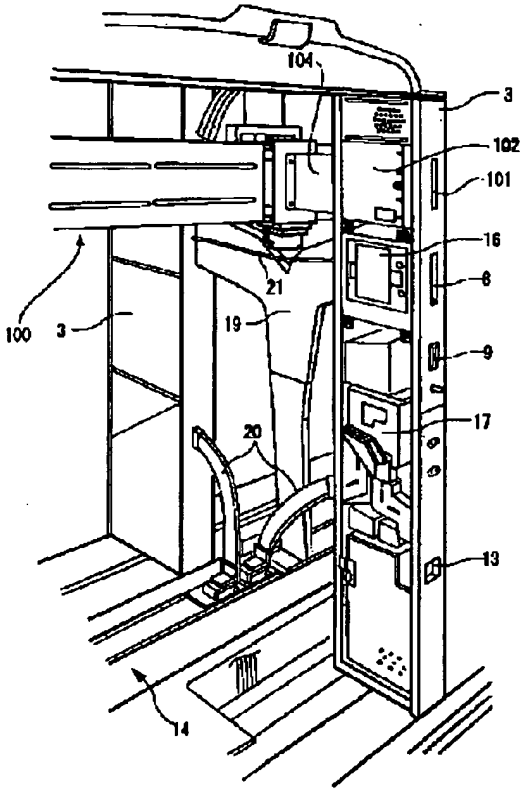
[Translation done.]



[Translation done.]

* NOTICES *

CLAIMS

[Claim(s)]
[Claim 1] The judgment hold section which is prepared in the equipment for games characterized by providing the following, this equipment for games, and the distant predetermined position, classifies individually the coin, bill, and record medium by which discharge was carried out [aforementioned], and holds them, The 1st passage for carrying out mixture conveyance of the record medium discharged from the coin and the aforementioned record-medium processing means which are discharged from the aforementioned coin processing means at the aforementioned judgment hold section, The 2nd passage for conveying the bill discharged from the aforementioned bill processing means to the aforementioned judgment hold section, The 1st branch way which connects the aforementioned coin processing means and the aforementioned 1st passage so that the aforementioned discharge coin may join the aforementioned 1st passage, The 2nd branch way which connects the aforementioned record-medium processing means and the aforementioned 1st passage so that the aforementioned discharge record medium may join the aforementioned 1st passage, the 3rd branch way which connects the aforementioned bill processing means and the aforementioned 2nd passage so that the aforementioned discharge bill may join the aforementioned 2nd passage -- since -- the facility equipment for games characterized by changing A coin processing means to discharge this discernment coin outside while discriminating a receptionist beam coin and performing predetermined processing accompanying the size of the coin value While discriminating a receptionist beam bill and performing predetermined processing accompanying the size of the bill value While performing processing for making the size of a bill processing means to discharge this discernment bill outside, and the valuable value specified from this recording information by reading the information currently recorded on the received record medium at least use it for a game A record-medium processing means to discharge the aforementioned receptionist beam record medium outside based on formation of predetermined

recovery conditions
[Claim 2] Facility equipment for games according to claim 1 by which each branch way of the aforementioned equipment for games established in the position which counters across each of this aforementioned passage is connected to this same passage where each branch way corresponds.
[Claim 3] The aforementioned 2nd branch way is facility equipment for games according to claim 1 or 2 which possesses a speed regulation means to regulate the unification speed to the aforementioned 1st passage of this record medium while the aforementioned discharge record medium is formed possible [flowing down].
[Claim 4] Facility equipment for games according to claim 3 with which the aforementioned speed regulation means is formed by incurvating suitably a unification section configuration with the aforementioned 1st passage of the aforementioned 2nd branch way along the conveyance direction of the aforementioned 1st passage.
[Claim 5] The aforementioned 1st branch way is facility equipment for games according to claim 1 to 4 which possesses a flowing-down speed regulation means to regulate the flowing-down speed of this coin while the aforementioned discharge coin is formed possible [flowing down].
[Claim 6] The aforementioned flowing-down speed regulation means is facility equipment for games according to claim 5 currently formed in the specification-part material by which the coin which flows down in the unification section with the aforementioned 1st passage of the aforementioned 1st branch way has been arranged possible [a collision].
[Claim 7] Facility equipment for games according to claim 1 to 6 which each aforementioned 2nd branch way which leads to the aforementioned record-medium processing means prepared in the position which counters across the aforementioned 1st passage joins, forms the one 2nd branch way, and is connected to the aforementioned 1st passage.
[Claim 8] Facility equipment for games according to claim 7 which does not discharge a record medium when each aforementioned record-medium processing means which leads to the aforementioned 2nd branch way which carries out unification is connected possible [signal transfer] mutually and the record-medium processing means of another side is outputting the signal of the purport which is [discharge / of a record medium] under processing.
[Claim 9] Facility equipment for games according to claim 1 to 8 which prepared a lap dissolution means to cancel the lap of the lap of a coin and a record medium and coin comrade who have the aforementioned 1st passage conveyed, or a record-medium comrade in the upper part regular position of the aforementioned judgment hold section.
[Claim 10] Facility equipment for games according to claim 9 which the aforementioned lap dissolution means has the conveyance way which constitutes the aforementioned 1st passage, and a predetermined gap, is arranged, and is formed

in the move direction and opposite direction of this conveyance way with the rotation roller by which drive rotation was carried out.
[Claim 11] Facility equipment for games according to claim 10 whose aforementioned rotation roller is a tension roller by which the gap with the aforementioned conveyance way was energized possible [change].
[Claim 12] It is facility equipment for games according to claim 1 to 11 with which the judgment way which has the pore of the predetermined size in which the aforementioned record medium can be passed and a coin falls is established in the aforementioned judgment hold section.
[Claim 13] The aforementioned judgment way is facility equipment for games according to claim 12 with which it is the ramp down which a coin and a record medium can flow, and the frictional resistance reduction member which reduces frictional resistance is formed in this judgment way front face.
[Claim 14] The game island according to claim 12 or 13 which has an alignment means to align the coin which has the aforementioned 1st passage conveyed by the position corresponding to the arrangement position of the pore in the aforementioned judgment way, in the downstream of the aforementioned lap dissolution means.
[Claim 15] Facility equipment for games according to claim 12 to 14 which possesses the coin judgment way which can be classified for every various exceptions for the coin which fell from the aforementioned judgment way based on the outer diameter of this coin.
[Claim 16] counting which carries out counting of recovery number of sheets or the recovery frame based on detection by this sensor while providing the sensor which performs detection of the classified coin, a bill, and a record medium in the aforementioned judgment hold section — the facility equipment for games possessing a means according to claim 1 to 15
[Claim 17] The aforementioned facility equipment for games is equipment for games according to claim 1 to 16 with which it is arranged in the game island in which the game machine was installed, and the aforementioned judgment hold section is contained and arranged inside the aforementioned game island.

[Translation done.]

* NOTICES *

2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[The field of the technology in which invention belongs] this invention is prepared among game machines, such as a pachinko machine and a slot machine, etc. corresponding to this game machine, and relates to the facility equipment for games which can collect and collect record media, such as money by which the injection was carried out [aforementioned], and a prepaid card, from equipments for games, such as a card unit by which injection and insertion of record media, such as money and a prepaid card, were enabled.
[0002]
[Description of the Prior Art] In recent years, as a loan processor which is formed on the game island installed in the amusement center corresponding to game machines, such as a pachinko machine, and lends out the pachinko ball which is a game medium, many things which lend out using record media, such as a prepaid card which enabled it to borrow the predetermined game medium for the amount of money, are used beforehand.
[0003] Although it has the advantage of becoming possible to exclude recovery of the money fed into this loan processor, in the loan processor which uses record media, such as these prepaid cards, as compared with the loan processor with which the loan of a game medium is made by injection of the conventional money The issue (sale) equipment of record media, such as these prepaid cards usually, in being installed in the edge of a game island etc. in many cases and newly carrying out additional purchase using the total amount of a prepaid card for this reason A game person needs to interrupt a game and needs to go out serially even to the aforementioned issue (sale) equipment. Since it changed into the state where it was occupied without the game machine working when it was inconvenient and ****(ed) for about [reducing the interest about a game person's game], and these addition purchase, there was a problem that the availability of a game machine will fall also for an amusement center.
[0004] In recent years, record media, such as the aforementioned prepaid card, to for this reason, equipments for games, such as an usable card unit, as this means that carries out a problem dissolution What gave the issue function of this record medium, and the function which can receive the loan of a game medium also by injection of money, Or many things which gave the additional payment function which can carry out renewal of addition of the valuable value for games corresponding to worth of these injection money at the valuable value for games

which remains in record media, such as the aforementioned prepaid card, are examined increasingly.

[0005] Although it is possible to establish these recovery mechanisms for the purpose of attaining laborsaving of the effort by recovery of these injection money, recovery of the aforementioned record medium, etc. when using the equipment for games which can throw in the both sides of these record media and money Inside the game island in which the card unit which is the aforementioned equipment for games when establishing these recovery mechanism, a game machine, etc. are installed From a feeding chute, etc. various interconnection cables, etc. of the pachinko ball which is a game medium being arranged intricately A few conveyance way and jamming making a conveyance way one, and it being intermingled and conveying [many] all the coins which are the prepaid card and money which are a recovery object, and bills as much as possible, in the former, have been proposed.

[0006]

[Problem(s) to be Solved by the Invention] However, when a conveyance way was made into one in this way, mixture conveyance of all the recovery objects was carried out and the conveyance obstacle etc. occurred on the only conveyance way, there was a case where it became impossible to use no functions of the aforementioned equipment for games, and there was a problem that the damage of an amusement center will become serious in such a case.

[0007] Therefore, even if this invention was made paying attention to the above-mentioned trouble and an obstacle produces it on a conveyance way, it aims at offering the facility equipment for games which can suppress the damage by this obstacle to the minimum.

[0008]

[Means for Solving the Problem] In order to solve said problem, the facility equipment for games of this invention While discriminating a receptionist beam coin and performing predetermined processing accompanying the size of the coin value While discriminating the received bill from a coin processing means to discharge this discernment coin outside and performing predetermined processing accompanying the size of the bill value While performing processing for making the size of a bill processing means to discharge this discernment bill outside, and the valuable value specified from this recording information by reading the information currently recorded on the received record medium at least use it for a game A record-medium processing means to discharge the aforementioned receptionist beam record medium outside based on formation of predetermined recovery conditions, The judgment hold section which is prepared in the equipment for **********, this equipment for games, and the distant predetermined position, classifies individually the coin, bill, and record medium by which eccrisis was carried out [aforementioned], and holds them, The 1st passage for carrying out mixture conveyance of the record medium discharged from the coin and the aforementioned record-medium processing means which are discharged from the aforementioned

coin processing means at the aforementioned judgment hold section, The 2nd passage for conveying the bill discharged from the aforementioned bill processing means to the aforementioned judgment hold section, The 1st branch way which connects the aforementioned coin processing means and the aforementioned 1st passage so that the aforementioned eccrisis coins may be collected in the aforementioned 1st passage, the 2nd branch way which connects the aforementioned record-medium processing means and the aforementioned 1st passage so that the aforementioned eccrisis record media may be collected in the aforementioned 1st passage, and the 3rd branch way which connects the aforementioned bill processing means and the aforementioned 2nd passage so that the aforementioned eccrisis bills may be collected in the aforementioned 2nd passage -- since -- it is characterized by changing According to this feature, this passage which conveys the coin, bill, and record medium which were collected from the aforementioned equipment for games in the aforementioned judgment hold section Since it is formed in the 1st passage which carries out mixture conveyance of a coin and the record medium, and this passage where the 2nd passage which conveys only a bill is individual and recovery by the other side is possible even if an obstacle occurs temporarily, the damage of the amusement center accompanying these obstacles can be suppressed to the minimum.

[0009] As for the facility equipment for games of this invention, it is desirable that each branch way of the aforementioned equipment for games established in the position which counters across each of this aforementioned passage is connected to this same passage where each branch way corresponds. If it does in this way, the number of each of these needed passage can be made into the minimum, and the structure of equipment will become simpler and the maintenance nature's can improve.

[0010] As for the aforementioned 2nd branch way, it is [the facility equipment for games of this invention] desirable to provide a speed regulation means to regulate the unification speed to the aforementioned 1st passage of this record medium while the aforementioned eccrisis record medium is formed possible [flowing down]. If it does in this way, the aforementioned record medium can prevent joining the aforementioned 1st passage and damaging at too much speed.

[0011] As for the facility equipment for games of this invention, it is desirable that the aforementioned speed regulation means is formed by incurvating suitably a unification section configuration with the aforementioned 1st passage of the aforementioned 2nd branch way along the conveyance direction of the aforementioned 1st passage. If it does in this way, in the unification to about [that the aforementioned speed regulation means can be formed with simple structure] and the 1st passage, the aforementioned record medium will not produce plugging in conveyance in the 1st passage, without being accompanied by electric drive etc.

[0012] As for the aforementioned 1st branch way, it is [the facility equipment for games of this invention] desirable to provide a flowing-down speed regulation

means to regulate the flowing-down speed of this coin while the aforementioned eccrisis coin is formed possible [flowing down]. If it does in this way, the aforementioned eccrisis coin can prevent breakage of this record medium by colliding with the aforementioned record medium which has the aforementioned 1st passage conveyed at too much speed.

[0013] The aforementioned flowing-down speed regulation means of being formed in the specification-part material arranged possible [a collision] is [the facility equipment for games of this invention / the coin which flows down in the unification section with the aforementioned 1st passage of the aforementioned 1st branch way] desirable. If it does in this way, the aforementioned flowing-down speed regulation means can be formed with simple structure, without being accompanied by electric drive etc., and maintenance nature will also improve.

[0014] As for the facility equipment for games of this invention, it is desirable that each aforementioned 2nd branch way which leads to the aforementioned record-medium processing means prepared in the position which counters across the aforementioned 1st passage joins, forms the one 2nd branch way, and is connected to the aforementioned 1st passage. If it does in this way, since the number of the aforementioned 2nd branch way connected to the aforementioned 1st passage decreases and the structure of the facility [itself] can be simplified, the maintenance nature of the facility equipment for games can be improved.

[0015] When it connects possible [signal transfer] mutually and the record-medium processing means of another side is outputting the signal of the purport which is [eccrisis / of a record medium] under processing, as for each aforementioned record-medium processing means by which the facility equipment for games of this invention is connected with the aforementioned 2nd branch way which carries out unification, it is desirable not to discharge a record medium. thus, if it carries out, a record medium will discharge more nearly simultaneous than each record-medium processing meanses of both -- having -- aforementioned every -- it can prevent getting a record medium blocked with the unification section of the 2nd branch way

[0016] As for the facility equipment for games of this invention, it is desirable to prepare a lap dissolution means to cancel the lap of the lap of a coin and a record medium and coin comrade who have the aforementioned 1st passage conveyed, or a record-medium comrade in the upper part regular position of the aforementioned judgment hold section. If it does in this way, every classification of the coin in the aforementioned judgment hold section, a record medium, and a coin can be classified easily and certainly.

[0017] As for the facility equipment for games of this invention, it is desirable for the aforementioned lap dissolution means to have the conveyance way which constitutes the aforementioned 1st passage, and a predetermined gap, to be arranged, and to be formed in the move direction and opposite direction of this conveyance way with the rotation roller by which drive rotation was carried out. If it does in this way, when a coin and a record medium come to pass through this one

gap at a time and about [that a lap is certainly cancelable] and the aforementioned rotation roller carries out drive rotation at the move direction and opposite direction of a conveyance way, neither a coin nor a record medium will produce plugging in the aforementioned gap by enlarging a little from the thickness of the coin which has the aforementioned predetermined gap conveyed, or a record medium.

[0018] As for the facility equipment for games of this invention, it is desirable that the aforementioned rotation roller is a tension roller by which the gap with the aforementioned conveyance way was energized possible [change]. thus -- if it carries out -- the aforementioned predetermined gap -- either a record medium or coin thickness -- the lap of both these record media and a coin is cancelable by considering as a bigger thing a little than the thickness of the thinner one

[0019] The aforementioned record medium can be passed in the aforementioned judgment hold section by the facility equipment for games of this invention, and, as for a coin, it is desirable that the judgment way which has the pore of the falling predetermined size is prepared. If it does in this way, judgment with the aforementioned record medium and a coin can be certainly classified by the simple mechanism.

[0020] The aforementioned judgment way is a ramp down which a coin and a record medium can flow, and, as for the facility equipment for games of this invention, it is desirable that the frictional resistance reduction member which reduces frictional resistance is formed in this judgment way front face. thus, the record medium which flows down this judgment way by it not being necessary to establish the mechanism in which movement of a record medium and a coin is performed in judgment, and preparing about [that it becomes possible to simplify the composition of the judgment hold section], and the aforementioned frictional resistance reduction member if it carries out -- a judgment on the street -- **** -- while being able to prevent things, that a blemish etc. reaches the front face of the aforementioned record medium can also prevent

[0021] As for the facility equipment for games of this invention, it is desirable to have an alignment means to align the coin which has the aforementioned 1st passage conveyed by the position corresponding to the arrangement position of the pore in the aforementioned judgment way, in the downstream of the aforementioned lap dissolution means. If it does in this way, in order to supply the pore in the aforementioned judgment way in the state where it aligned without the coin which has the aforementioned 1st passage conveyed lapping, this conveyance coin can be classified certainly.

[0022] As for the facility equipment for games of this invention, it is desirable to provide the coin judgment way which can be classified for every various exceptions for the coin which fell from the aforementioned judgment way based on the outer diameter of this coin. If it does in this way, even if the aforementioned coins are two or more cases where classification existence is recognized, these coins can be classified and collected for every various exceptions, and the effort which the

judgment work of these coins takes can be saved labor.
[0023] counting which carries out counting of recovery number of sheets or the recovery frame based on detection by this sensor while the facility equipment for games of this invention possesses the sensor which performs detection of the classified coin, a bill, and a record medium in the aforementioned judgment hold section — it is desirable to provide a means If it does in this way, the recovery number of sheets or recovery frame of the collected coin, a bill, and a record medium can be grasped serially.
[0024] The aforementioned facility equipment for games is arranged in the game island in which the game machine was installed, and, as for the facility equipment for games of this invention, it is desirable that the aforementioned judgment hold section is contained and arranged inside the aforementioned game island. If it does in this way, the position of the judgment hold section in which the aforementioned judgment hold section projects and bends to the exterior of a game island, and about [that the fine sight of a game island can be improved], the aforementioned recovery coin, and a recovery bill are held from things can be made unclear for a third person, and a theft etc. can be prevented.
[0025]
[Embodiments of the Invention] Hereafter, the operation gestalt of this invention is explained based on a drawing. In addition, in the following examples, although the example using the pachinko machine as a game machine is shown, this invention is not limited to this and can be applied also in game machines, such as other game machines, for example, a slot machine etc.
[0026] Drawing 1 is the appearance perspective diagram showing the game island 1 of this example. (Example) The game island 1 The card unit 3 as equipment for games installed in the both-sides side in the flank position of the pachinko machine 2 as a game machine, and this pachinko machine 2, In the abbreviation center-section lower part position which ****** of is made possible and inserted into the pachinko machine 2 and the card unit 3 of the aforementioned both-sides side inside [game island 1] this The mixed conveyance way 14 as the 1st passage whose conveyance was enabled is established in the one side of this game island in the IC card (prepaid card) and coin which are the record medium discharged from each card unit 3. In game island 1 end face of the conveyance direction of this mixed conveyance way 14 The recovery box 4 where the coin and the card hold section 27 which constitutes the judgment hold section of this invention in the interior have been arranged, It is prepared in the control box 15 equipped with the display with which the number of sheets of the bill collected in the these-collected coin, an IC card, and the below-mentioned bill hold section 146 etc. is displayed, and the form where ** is contained by the game island 1 interior.
[0027] moreover, in the abbreviation center-section upper part position inserted into the pachinko machine 2 and the card unit 3 of the aforementioned both-sides side inside [game island 1] the above The bill conveyance way 100 as the 2nd passage

whose conveyance was enabled is formed in the same direction as the conveyance direction of the aforementioned mixed conveyance way 14 in the bill discharged from each card unit 3. The bill hold section 146 which constitutes the judgment hold section of this invention which collects the bills conveyed on the aforementioned bill conveyance way 100 is formed in the exterior at game island 1 end face of the conveyance direction of this bill conveyance way 100.

[0028] In addition, although it is prepared in this example in the mode to which the bill hold section 146 projects in the method of outside in **** of the game island 1 as shown in drawing 1 this invention is not limited to this and you may make it hold the both sides of aforementioned coin and card hold section 29, and the bill hold section 146 in the interior of the game island 1. by this Each hold section projects and bends to the exterior of the game island 1, from things, the position of the coin, the card hold section 29, and the bill hold section 146 as the judgment hold section in which the coin collected [that the fine sight of the game island 1 can be improved and] and a bill are held can be made unclear for a third person, and a theft etc. can be prevented.

[0029] Moreover, although the coin and the card hold section which classifies and holds separately the coin which had the mixed conveyance way 14 conveyed, and an IC card, the bill hold section 146 which holds the bill which had the bill conveyance way 100 conveyed, and the judgment hold section of a shell this invention consist of this examples That what is necessary is not to limit this invention to this, to classify at least the coin and bill which have been conveyed on the mixed conveyance way 14 and the bill conveyance way 100, and an IC card, and just to be able to hold them now For example, these are constituted as the judgment hold section of one, and you may make it attain ** space-ization of the game island 1 interior.

[0030] If the pachinko machine 2 used for this example and the card unit 3 are explained based on drawing 2 and drawing 3 , to the upper pan prepared in the mode which protrudes on the front face of this pachinko machine 2 The loan button 7 operated when a game person wants to receive a loan, and the return button 6 operated in case a game is ended, The frequency drop 5 which displays the frequency which is the valuable value specified based on the information recorded on the aforementioned IC card, In case frequency exists in **** eclipse ****** and the aforementioned frequency drop 5, it is the common card reader formula pachinko machine with which the pachinko ball of a predetermined number was discharged by the above top pan, and operation of a game of it was enabled using the aforementioned IC card by operating the aforementioned loan button 7.

[0031] In the front face of the aforementioned card unit 3 which is connected with this pachinko machine 2 and installed in the flank position of this pachinko machine 2 The card slot 8 by which insertion of the IC card of the non-contact formula used as a slot for bills 101 and a prepaid card as shown in drawing 3 was enabled, Coin input port 9, the coin return button 10 operated in case thrown-in money is returned, the payment button 11 operated in case additional payment of the invested amount

of money is carried out, the stop button 12 operated in case the stop of this additional payment is carried out, and the return mouth 13 of the coin by which the injection was carried out [aforementioned] are formed. Moreover, the bill discernment unit 102 as a bill processing means which are formed successively by the aforementioned slot for bills 101 and discriminates an injection bill in the interior as shown in drawing 2 and drawing 14 , IC card reader writer 16 as a record-medium processing means in which read-out and the writing of the various information recorded on the aforementioned IC card which are formed successively by the aforementioned card slot 8 and inserted in it are possible, The coin discernment unit 17 as a coin processing means which are formed successively by the aforementioned coin input port 9 and discriminates an injection coin is formed.

[0032] While the aforementioned IC card reader writer 16 reads the information on frequency data etc. in non-contact and displays this frequency on the aforementioned frequency drop 5 from the IC card by which insertion was carried out [aforementioned], this card unit 3 Based on operation of the aforementioned loan button 7, loan processing which subtracts the frequency which outputs a predetermined pulse to the aforementioned pachinko machine 2, and corresponds to this number of loan balls, and indicates the display of the aforementioned frequency drop 5 by updating is carried out so that the pachinko ball of a predetermined number may be lent out. When the frequency read from the aforementioned IC card remains, operation of the additional payment processing which carries out renewal of addition is enabled by throwing in a bill or a coin at the frequency which carries out the aforementioned survival of the frequency based on the amount of money of the this thrown-in bill or a coin.

[0033] IC card reader writer 16 used in the aforementioned this example The guide rail 98 by which it considers as composition as shown in drawing 4 , and was installed by the insertion sensor 97 which detects insertion of the IC card from the aforementioned card slot 8, and the aforementioned card slot 8, and the slide of an IC card was enabled, The conveyance rollers 87 and 88 which are arranged so that this guide rail 98 may be inserted, and carry out movement of this IC card by carrying out drive rotation with drive motors 86 and 93, The conveyance belt 91 laid [firmly] across the one side of the aforementioned conveyance rollers 87 and 88, since -- the electromagnetism which appears the conveyance mechanism which changes, and the stop pin which makes a predetermined position stop the this IC card conveyed frequently -- a solenoid 89 -- While the control board 92 which is connected to the communication head 90 which performs the electric supply and data communication by non-contact [to the IC card stopped in the predetermined position], and aforementioned each part, and carries out the control is formed This IC card reader writer 16 is exposed to the tooth back of the card unit 3, and the card exhaust port 95 which is open for free passage in the aforementioned conveyance mechanism is formed in this exposed surface. Moreover, as shown in drawing 14 , the card branch ways 19 (the 2nd branch way) connected with the

aforementioned mixed conveyance way 14 are formed successively by the aforementioned card exhaust port 95, and it is discharged from the aforementioned card exhaust port 95, and the IC card used as used flows down the card branch way 19 interior of this, it is discharged by the aforementioned mixed conveyance way 14, and 94 in drawing is a free roller with which this transfer is assisted by free rotation.
[0034] Although it carries out when the residual frequency of the aforementioned frequency drop 5 is set to "0" from the aforementioned card exhaust port 95 in this example as recovery conditions by which an IC card is discharged (recovery), this invention is not limited to this, and these recovery conditions etc. can be arbitrarily set up so that residual frequency may be set to "0" and it may consider as the progress back of a predetermined time.
[0035] Moreover, in this example, as shown in drawing 2 , it considers as the letter of the abbreviation for Y characters, connects with IC card reader writer 16 of the both sides of the card unit 3 stationed in the position which counters across this aforementioned passage, the IC card discharged joins, and the aforementioned card branch way 19 is discharged by the aforementioned mixed conveyance way 14. Each IC card reader writer 16 connected on these same card branch way 19 The control board 92 aforementioned comrade is connected possible [signal transfer] by the signal cable 21. this control board 92 In case an IC card is discharged from the aforementioned card exhaust port 95 Control which outputs a predetermined discharge signal during this discharge at a signal cable 21 while checking that the predetermined discharge signal is not outputted to this signal cable 21 is carried out. It prevents an IC card being discharged simultaneously and getting an IC card blocked in the unification section of the aforementioned card branch way 19 from both IC card reader writers 16.
[0036] Although making it the card branch way 19 join, and doing in this way has the desirable interior of a game island in this example from the ability to prevent complicating by standing close together of the aforementioned card branch way 19 as described above, this invention is not limited to this and you may make it prepare it as individual every card unit 3 like the coin branch way 20 which mentions these card branch way 19 later.
[0037] Moreover, the bill discernment unit 17 used in the aforementioned this example An injection bill discriminates whether it is [of 1000 yen] a tag bill, and in being neither the case where they are bills other than this, nor a regular bill Return this bill from the aforementioned slot for bills 101, and in being a 1000 yen bill bill This bill is stored temporarily, and based on the aforementioned payment button 11 being operated by the game person, from the bill exhaust port 103 (refer to drawing 14) by the side of a tooth back, this bill is discharged and is discharged by the aforementioned bill conveyance way 100 through the bill branch way 104 (the 3rd branch way) formed successively. Moreover, the bill thrown in when a payment button was not operated but the aforementioned stop button 12 was operated is returned from the aforementioned slot for bills 101. Moreover, the aforementioned

bill branch way 104 established in the card unit 3 in the position which counters across the aforementioned bill conveyance way 100 is connected to the same bill conveyance way 100 as shown in drawing 2 .

[0038] Thus, the bill branch way 104 which were formed successively by the card unit 3 which is in the position which corresponds across the bill conveyance way 100 in this example, and was prepared can make the minimum number the bill conveyance way 100 which is connected to the same bill conveyance way 100, and is prepared in the game island 1, structure will become simpler and its maintenance nature of the can also improve.

[0039] Moreover, the coin discernment unit 17 used in the aforementioned this example An injection coin discriminates whether it is [of 500 yen] being [it / a coin] the coin of 100 yen, and in being neither the case where they are coins other than this, nor a regular coin In returning this coin from the aforementioned return mouth 13 through the return path 18, and an injection coin's being a 500 yen coin or being a 100 yen coin Based on the aforementioned payment button 11 being operated by the game person, from the coin exhaust port 105 (refer to drawing 14) by the side of a tooth back, this coin is stored temporarily, and it is discharged, and these coins flow down all over the coin branch way 20 formed successively, and are discharged by the aforementioned mixed conveyance way 14. Moreover, when a payment button is not operated but the aforementioned stop button 12 is operated, an injection coin is returned from the aforementioned return mouth 13. Moreover, the aforementioned coin branch way 20 (the 1st branch way) established in the card unit 3 in the position which counters across the aforementioned mixed conveyance way 14 is connected to the same mixed conveyance way 14 as shown in drawing 2.

[0040] Thus, the coin branch way 20 and the card branch way 19 which were formed successively by the card unit 3 which is in the position which counters across the mixed conveyance way 14 in this example, and was prepared can make the minimum number the mixed conveyance way 14 which is connected to the same mixed conveyance way 14, and is prepared in the game island 1, structure will become simpler and its maintenance nature of the can also improve.

[0041] When the composition of the aforementioned bill conveyance way 100 is explained based on drawing 15 , subsequently, this bill conveyance way 100 Two or more conveyance units 144 which the conveyor belt (illustration abbreviation) which conveys a bill was laid [firmly] across the interior, and were made into predetermined length, The connection unit 141 which the drive motor 145 which drives the conveyor belt of each conveyance unit 144 is formed, and connects each [conveyance unit 144], Shell composition is carried out, these conveyances unit 144 and the connection unit 141 are connected by turns inside the game island 1, and the conveyance way of 1 this letter prolonged in **** from **** is formed.

[0042] Moreover, the aforementioned bill branch way 104 is connected with these connection unit 141 order side, and it is discharged from the bill exhaust port 103 of the aforementioned bill discernment unit 102, and the bill which had the bill branch

way 104 sent out is sent out in the aforementioned conveyance unit 144 in this connection unit 141, and is conveyed in the predetermined **** direction by circulation of the conveyor belt in this conveyance unit 144.

[0043] Moreover, the trailer of the conveyance unit 144 located in the conveyance direction termination of the aforementioned bill conveyance way 100 is connected with the bill hold section 146 which constitutes the judgment hold section of this invention shown in drawing 1 , and the bill which has had the bill conveyance way 100 conveyed is collected and held.

[0044] moreover, in the connection part of this bill hold section 146 and the conveyance unit 144 As shown in drawing 1 , passage of the bill (this example 1000 yen bill bill) which the bill sensor 147 is formed and is held in the bill hold section 146 the sensor circuit and I/O Port on the control board by which it was detected by this bill sensor 147, and the detecting signal based on this detection was prepared in the control box 15 interior and which is mentioned later -- minding -- counting -- it is outputted to the control microcomputer (refer to drawing 13) as a means

[0045] When the composition of the mixed 1st conveyance way 14 which was prepared in the game island 1 of this example and which is passage is explained based on drawing 5 and drawing 6 , subsequently, in the both ends of the longitudinal direction of the game island 1 The construction roller 27 the drive roller 26 which carries out drive rotation by the drive motor 24 and the timing belt 25, and whose rotation were enabled is formed. The endless-like conveyance belt 23 is laid between this drive roller 26 and the construction roller 27. It is driving in the predetermined direction with the aforementioned drive roller 26 so that this conveyance belt 23 may carry out circulation movement. to the conveyance direction termination side The hole of a predetermined size as shown in drawing 10 The coin and the card hold section 29 which constitutes the judgment hold section of this invention equipped with the card judgment way 30 which classifies classification (they are 500 yen and a 100 yen coin at this example) of the aforementioned IC card, a coin, and a coin, and the coin judgment way 31 from having are formed. 28 in drawing is a guide idler which supports the aforementioned conveyance belt 23, and the operation is controlled by the control microcomputer with which the aforementioned drive motor 24 was formed in the control box 15 interior of the above and which is mentioned later.

[0046] As shown in drawing 6 , in this conveyance belt 23 circumference, ****** 22 of the shape of a KO character whose hold of this conveyance belt 23 was enabled is formed, and the IC card and coin which have this conveyance belt 23 top conveyed fall to it.

[0047] The unification section with this mixed conveyance way 14, the aforementioned card branch way 19, and the aforementioned coin branch way 20 It is shown in drawing 7 . in the termination lower part of the aforementioned card branch way 19 The unification guide 36 which curved suitably along the move

direction (the conveyance direction) of the aforementioned conveyance belt 23 as a speed regulation means is formed. The shock which joins an IC card is eased by changing the travelling direction of the IC card flowing down in the conveyance direction, and reducing flowing-down speed. Moreover, when the coin flowing down collides, the coin unification unit 35 which has the specification-part material 40 as a flowing-down speed regulation means to reduce the flowing-down speed of this coin and to mitigate the shock to the IC card by flowing down of this coin is formed in the termination lower part of the aforementioned coin branch way 20.

[0048] As mentioned above, what is necessary is not to limit this invention to this in the unification guide 36, although the specification-part material 40 as a flowing-down speed regulation means is formed, and just to be able to regulate an IC card and the flowing-down speed of a coin as a speed regulation means, in this example, as these speed regulation means and a flowing-down speed regulation means.

[0049] The IC card and the various coins which were discharged by these mixture conveyance way 14 Since it is discharged arbitrarily and may be conveyed in the state where it lapped on the aforementioned conveyance belt 23, as this example is shown in drawing 8 The alignment unit 38 which performs alignment of the coin lap dissolution unit 37 which prevents these laps, the card lap dissolution unit 39, and the coin conveyed is formed in the upper section position of the aforementioned coin and card hold section 29.

[0050] This coin lap dissolution unit 37 between the upper surfaces of the conveyance belt 23 which moves in the ****** 22 interior of the above It has the drive motor 42 driven so that the roller 41 arranged so that the predetermined gap through which a coin and one 100 yen coin can pass may be formed may be rotated to the aforementioned conveyance direction and an opposite direction. The coin in the state where it lapped with an IC card or other coins by being eliminated in contact with the aforementioned roller 41 Anchoring in the arbitrary positions of ****** 22 is enabled by electrode-holder 37' which the lap of an IC card, a coin and a coin, and a coin is canceled, and surrounds aforementioned ****** 22.

[0051] Each coin in which these laps were canceled between the soffit section and the upper surfaces of the aforementioned conveyance belt 23 The alignment board 43 formed so that it might have the predetermined gap which can contact a coin although it could pass without contacting an IC card By the aforementioned alignment unit 38 of the conveyance belt 23 prepared by having the predetermined angle which can change the course so that it might align in the center section mostly, the contacting coin is aligned on 1 train in the simultaneously center section of the conveyance belt.

[0052] Moreover, although the card lap dissolution unit 39 prepared in the downstream of this alignment unit 38 is considered as the almost same composition as the aforementioned coin lap dissolution unit 37 The roll formed in this card lap dissolution unit 39 It considers as the flange roller 44 with which an opening which does not contact the coin which aligned in the aforementioned center section in the

center section was prepared. The gap of the roller side and the conveyance belt 23 in the both ends of this flange roller 44 When the IC card is made into the predetermined thickness which can be passed one sheet and this flange roller 44 carries out drive rotation with a drive motor 45 at the conveyance direction and an opposite direction In contact with the aforementioned flange roller 44, only a lower IC card comes to pass [the IC card of an overlapping top] the flange roller 44, and the lap of an IC card is canceled. moreover — the above — alignment — a unit — 38 — and — a card — a lap — a dissolution — a unit — 39 — the above — a coin — a lap — a dissolution — a unit — 37 — the same — the above — ****** — 22 — surrounding — a electrode holder — 38 — ' — 39 — ' — ****** — 22 — being arbitrary — a position — anchoring — being possible — ** — carrying out — having — **** — while — the above —

[0053] Although it is desirable to cancel each [these] lap from the ability to both carry out the counting now certainly as if for every judgment with the IC card and coin which are mentioned later, and classification of a coin to be classified certainly and easily, this invention is not limited to this, and depending on the judgment method, you may not be made to make these laps prevention into either, or not to carry it out suitably.

[0054] Moreover, although the lap of an IC card and a coin is carried out in this example in the individual card lap dissolution unit 39 and the coin lap dissolution unit 37 as described above As this invention is not limited to this and shown in drawing 16 , the roller 65 arranged in the aforementioned conveyance belt upper surface and a predetermined gap Support to revolve to the slide board 69 energized below by the member 70, and it considers as a tension roller. while a slide in the vertical direction is enabled — energization of a spring etc. — It is made to make the conveyance direction and an opposite direction rotate this by the timing belt 67 with a drive motor 66. It may be made to make cancelable the lap of the IC card and coin in which thickness differs in the same unit, and you may make it cancel the lap of an IC card, a coin and an IC card, and a coin by the other methods. In addition, 68 in drawing is an adjustment roller which adjusts the flare of the timing belt 67 accompanying vertical movement of a roller 65.

[0055] Thus, the coin and IC card by which the lap was canceled are conveyed and supplied to the coin and the card hold section 29 shown in drawing 9 . The coin judgment way 31 is established in the lower position of the card judgment way 30 as shown in drawing 10 in the form formed successively in this coin and card hold section 29 at the trailer of the aforementioned conveyance belt 23, and this card judgment way 30. After the IC card which passed through this card judgment way 30 passed the card sensor 47 and was detected, The 500 yen coin which was held in the card recovery box 32 and classified on the aforementioned coin judgment way 31, and a 100 yen coin Each [guide 33' and / which are held in the coin recovery box 33 and the 100 yen coin recovery box 34 through 34', and are this held] coin is detected by the coin sensors 48 and 49 formed in aforementioned guide 33' and 34'.

[of 500 yen] Moreover, the aforementioned card recovery box box [coin recovery] coin recovery box 34 of 33,100 yen of 32,500 yen is held in the recovery box 4 interior of the above possible [ejection], as shown in drawing 11 .

[0056] As shown in drawing 10 , it is formed in the ramp almost equivalent to the width of face of the aforementioned conveyance belt 23, and the slide section on which the Teflon (registered trademark) sheet 50 as a frictional resistance reduction member was stuck is prepared in the both-sides section, in the IC card supplied from the aforementioned conveyance belt 23, this slide section top is slid and the aforementioned card judgment way 30 used for the aforementioned this example passes this card judgment way 30. Moreover, the pore 46 of the size by which fall of the coin of 100 yen and 500 yen both sides was enabled is formed in the ramp mid gear between the aforementioned slide sections, and the coin which aligned in the aforementioned alignment unit 38 at the mid gear of the conveyance belt 23 is supplied to the coin judgment way 31 which fell from this pore 46 and has been arranged at the card judgment way 30 lower part.

[0057] While this coin judgment way 31 is considered as the composition in which the flowing-down guides 51a and 51b which lead a coin to the judgment pore 52 were formed on the plate 53 which inclined at the predetermined angle, inclination arrangement of the aforementioned plate 53 is carried out at the flowing-down guide 51b side so that the coin flowing down may flow down in contact with flowing-down guide 51b. Moreover, the aforementioned judgment pore 52 is made into the size in which only the 100 yen coin of a minor diameter falls, without the 500 yen coin of a major diameter falling. Contacting the aforementioned flowing-down guide 51b, the coin which fell from the aforementioned pore 46 and was supplied to the coin judgment way 31 flows down on a plate 53, is supplied to the aforementioned judgment pore 52, and only a coin falls from the aforementioned judgment pore 52 100 yen, and it is classified with a coin. [of 500 yen]

[0058] as mentioned above, the card judgment way 30 -- setting -- frictional resistance reduction -- sticking the Teflon sheet 50 which is a member While it is prevented that an IC card piles up on this card judgment way 30 That a blemish etc. cannot be easily attached to this IC card front face, although it is desirable from a bird clapper, this invention is not limited to the aforementioned Teflon sheet 50, a nylon sheet etc. is sufficient, for example, especially if reduction of friction is possible for these frictional resistance reduction member, it will not be limited.

[0059] As the IC card and the various coins which were these-classified are detected by the aforementioned card sensor 47 and the coin sensors 48 and 49 and this detecting signal shows them to drawing 13 the sensor circuit and I/O Port on the control board prepared in the control box 15 interior of the above -- minding -- counting, as it is outputted to the control microcomputer as a means, addition counting of each recovery number of sheets is carried out with this control microcomputer and it is shown in drawing 12 It is displayed on the card number-of-sheets drop ball number-of-sheets drop ball number-of-sheets drop 58 of 58,100

yen of 57,500 yen on the control panel formed in the interior of this control box 15 through a display circuit.
[0060] moreover, on the control microcomputer in the aforementioned control box As shown in drawing 13 , the detecting signal based on passage of a 1000 yen bill bill by the above-mentioned bill sensor 147 is outputted through the aforementioned sensor circuit and an I/O Port. Addition counting of the recovery number of sheets of the bill collected in the bill hold section 146 with this control microcomputer is carried out, and as shown in drawing 12 , it is displayed on the 1000 yen bill number-of-sheets drop 148 on the aforementioned control panel through a display circuit.
[0061] Thus, it is desirable in it being possible to check the amount of recoveries serially to display the number of sheets of the IC card collected by each aforementioned drop, the number of sheets of various coins, and the number of sheets of a 1000 yen bill bill from a bird clapper, and it collects data, such as these recovery number of sheets, by communication to a management computer etc., concentrates the recovery situation in each game island, and you may make it manage. moreover — this example — counting — that by which this invention is limited to this although the aforementioned control microcomputer is used as a means — it is not — these counting — a means adds the output from each aforementioned sensor, the recovery number of sheets is not limited especially if counting is possible for it, and especially if detection of this IC card and a coin is possible also for each sensor which performs detection of the aforementioned IC card or a coin further, it will not be limited, either Moreover, although the number of sheets collected by the aforementioned drop is displayed in the aforementioned this example, the multiplication of the amount of money of a coin is carried out to these number of sheets, and the amount of money may be made to be displayed.
[0062] As shown in drawing 12 , moreover, to the aforementioned control panel The operation button 55 which makes operation of the drive motors 42 and 45 formed in the drive motor 24 and each aforementioned lap dissolution units 37 and 39 which drive the aforementioned conveyance belt start, While the unusual lamp 56 turned on at the time of a certain abnormalities is formed So that it may be easy to operate it at the time of the ejection of each aforementioned recovery boxes 32, 33, and 34 The operation lamp 63 which reports that the light is switched on by operating the earth switch 62 and the aforementioned operation button 55 which are made to stop operation of each aforementioned drive motors 24, 42, and 45 in the form exposed to the recovery box 4 interior of the above, and it is in an operation situation is formed. These each part is connected to the control microcomputer through the I/O Port, as shown in drawing 13 , and this control microcomputer carries out counting of the IC card and coin of these each part by which control and the aforementioned recovery were carried out, or a bill based on the control program memorized by ROM. In addition, 61 in drawing 12 is a power supply breaker, and 60 is a line indicator turned on when it acts as powering on with this power supply breaker.
[0063] As mentioned above, the coin collected from the card unit 3 when carrying

out like this example, The conveyance way which conveys a bill and an IC card (prepaid card) in the judgment hold section which consists of the bill hold section 146, and a coin and the card hold section 29 Even if an obstacle occurs temporarily from being formed on the mixed conveyance way 14 which carries out mixture conveyance of a coin and the IC card, and the individual conveyance way of the bill conveyance way 100 which conveys only a bill Since recovery by the other side is possible, the damage of the amusement center accompanying these obstacles can be suppressed to the minimum.

[0064] Each element in each aforementioned example corresponds as follows to this invention.

[0065] While the claim 1 of this invention discriminates the received coin and performs predetermined processing accompanying the size of the coin value While discriminating the received bill from a coin processing means (coin discernment unit 17) to discharge this discernment coin outside and performing predetermined processing accompanying the size of the bill value A bill processing means to discharge this discernment bill outside (bill discernment unit 102), While performing processing (loan processing) for making the size of the valuable value (frequency) specified from this recording information by reading at least the information currently recorded on the receptionist beam record medium use it for a game A record-medium processing means to discharge the aforementioned receptionist beam record medium (IC card (prepaid card)) outside based on formation of predetermined recovery conditions (IC card reader writer 16), It is prepared in the equipment for ********** (card unit 3), this equipment for games (card unit 3), and the distant predetermined position. The judgment hold section which classifies individually the coin, bill, and record medium (IC card (prepaid card)) by which discharge was carried out [aforementioned], and holds them (the bill hold section 146, a coin and the card hold section 29), The aforementioned coin processing means The 1st passage for carrying out mixture conveyance of the record medium (IC card (prepaid card)) discharged from the coin and the aforementioned record-medium processing means (IC card reader writer 16) which are discharged from (the coin discernment unit 17) at the aforementioned judgment hold section (a coin and card hold section 29) (The mixed conveyance way 14) and the 2nd passage (bill conveyance way 100) for conveying the bill discharged from the aforementioned bill processing means (bill discernment unit 102) to the aforementioned judgment hold section (bill hold section 146), The 1st branch way which connects the aforementioned coin processing means (coin discernment unit 17) and the aforementioned 1st passage (mixed conveyance way 14) so that the aforementioned discharge coin may join the aforementioned 1st passage (mixed conveyance way 14) (coin branch way 20), The 2nd branch way which connects the aforementioned record-medium processing means (IC card reader writer 16) and the aforementioned 1st passage (mixed conveyance way 14) so that the aforementioned discharge record medium (IC card (prepaid card)) may join the aforementioned 1st passage

(mixed conveyance way 14) (card branch way 19), the 3rd branch way (bill branch way 104) which connects the aforementioned bill processing means (bill discernment unit 102) and the aforementioned 2nd passage (bill conveyance way 100) so that the aforementioned discharge bill may join the aforementioned 2nd passage (bill conveyance way 100) -- since -- it changes

[0066] Each branch way (the coin branch way 20, the card branch way 19, bill branch way 104) of the aforementioned equipment for games (card unit 3) established in the position where the claim 2 of this invention counters across each of this aforementioned passage (the mixed conveyance way 14, bill conveyance way 100) is connected to this same corresponding passage (the mixed conveyance way 14, bill conveyance way 100) for each branch way.

[0067] The claim 3 of this invention possesses a speed regulation means (unification guide 36) to regulate the unification speed to the aforementioned 1st passage (mixed conveyance way 14) of this record medium (IC card (prepaid card)) while the aforementioned 2nd branch way (card branch way 19) is formed possible [flowing down of the aforementioned eccrisis record medium (IC card (prepaid card))].

[0068] The claim 4 of this invention is formed because the aforementioned speed regulation means (unification guide 36) incurvates suitably a unification section configuration with the aforementioned 1st passage (mixed conveyance way 14) of the aforementioned 2nd branch way (card branch way 19) along the conveyance direction of the aforementioned 1st passage (mixed conveyance way 14).

[0069] The claim 5 of this invention possesses a flowing-down speed regulation means (coin unification unit 35) to regulate the flowing-down speed of this coin while the aforementioned 1st branch way (coin branch way 20) is formed possible [flowing down of the aforementioned eccrisis coin].

[0070] The claim 6 of this invention is formed for the aforementioned flowing-down speed regulation means (coin unification unit 35) by the specification-part material 40 by which the coin which flows down in the unification section with the aforementioned 1st passage (mixed conveyance way 14) of the aforementioned 1st branch way (coin branch way 20) has been arranged possible [a collision].

[0071] aforementioned every which leads to the aforementioned record-medium processing means (IC card reader writer 16) prepared in the position where the claim 7 of this invention counters across the aforementioned 1st passage (mixed conveyance way 14) -- the 2nd branch way joins, forms the one 2nd branch way (card branch way 19), and is connected to the aforementioned 1st passage (mixed conveyance way 14)

[0072] Each aforementioned record-medium processing means (IC card reader writer 16) by which the claim 8 of this invention is connected with the aforementioned 2nd branch way (card branch way 19) which carries out unification is connected possible [signal transfer] mutually, and when outputting the signal of the purport which the record-medium processing means (IC card reader writer 16) of another side is eccrisis [of a record medium (IC card (prepaid card))] processing, a

record medium (IC card (prepaid card)) is not discharged.
[0073] The claim 9 of this invention prepares a lap dissolution means (the coin lap dissolution unit 37, card lap dissolution unit 39) to cancel the lap of the lap of a coin and a record medium (IC card (prepaid card)) and coin comrade who have the aforementioned 1st passage (mixed conveyance way 14) conveyed, or a record-medium (IC card (prepaid card)) comrade in the upper part regular position of the aforementioned judgment hold section (a coin and card hold section 29).
[0074] It has the conveyance way (conveyance belt 23) which constitutes the aforementioned 1st passage (mixed conveyance way 14), and a predetermined gap, the aforementioned lap dissolution means (the coin lap dissolution unit 37, card lap dissolution unit 39) is arranged, and the claim 10 of this invention is formed in the move direction and opposite direction of this conveyance way (conveyance belt 23) with the rotation roller (a roller 41, flange roller 44) by which drive rotation was carried out.
[0075] The claim 11 of this invention is the tension roller 65 by which the aforementioned rotation roller (a roller 41, flange roller 44) was energized possible [change of a gap with the aforementioned conveyance way (conveyance belt 23)].
[0076] In the aforementioned judgment hold section (a coin and card hold section 29), the aforementioned record medium (IC card (prepaid card)) can be passed, and, as for the claim 12 of this invention, the judgment way (card judgment way 30) which has the pore 46 of the predetermined size in which a coin falls is prepared.
[0077] The claim 13 of this invention is the ramp to which a coin and a record medium (IC card (prepaid card)) can flow down the aforementioned judgment way (card judgment way 30), and the frictional resistance reduction member (Teflon sheet 50) which reduces frictional resistance is formed in this judgment way (card judgment way 30) front face.
[0078] The claim 14 of this invention has an alignment means (alignment unit 38) to align the coin which has the aforementioned 1st passage (mixed conveyance way 14) conveyed by the position corresponding to the arrangement position of the pore 46 in the aforementioned judgment way (card judgment way 30), in the downstream of the aforementioned lap dissolution means (the coin lap dissolution unit 37, card lap dissolution unit 39).
[0079] The claim 15 of this invention possesses the coin judgment way 31 which can be classified for every various exceptions based on the outer diameter of this coin for the coin which fell from the aforementioned judgment way (card judgment way 30).
[0080] The coin in which the claim 16 of this invention was classified, While providing the sensor (the card sensor 47, the coin sensors 48 and 49, bill sensor 147) which performs detection of a bill and a record medium (IC card (prepaid card)) in the aforementioned judgment hold section (the bill hold section 146, a coin and the card hold section 29) counting which carries out counting of recovery number of sheets or the recovery frame based on detection by this sensor (the card sensor 47, the

coin sensors 48 and 49, bill sensor 147) — a means (control microcomputer) is provided

[0081] The claim 17 of this invention is arranged in the game island 1 in which the game machine (pachinko machine 2) was installed, and the aforementioned judgment hold section (a coin and card hold section 29) is contained inside [game island 1] the above, and it is arranged.

[0082] In addition, as predetermined processing of the coin processing means in the aforementioned claim, and a bill processing means, the additional payment processing based on the injection coin or bill in the aforementioned example corresponds.

[0083] Moreover, although it carries out when residual frequency is set to "0" in the aforementioned example as predetermined recovery conditions in the aforementioned claim [when the acquisition valuable value that the aforementioned record medium was gained in the game is recordable] What is necessary is just to determine suitably the case where this acquisition valuable value is "0" according to the content of recovery conditions, then the information good and recorded on a record medium as these recovery conditions etc., while the aforementioned residual frequency is "0."

[0084] As mentioned above, although the aforementioned example has explained the operation gestalt of this invention with the drawing, even if this invention has the change and the addition in the range which is not limited to these examples and does not deviate from the main point of this invention, being contained in this invention cannot be overemphasized.

[0085] For example, although only the tag of 1000 yen is received in the bill discernment unit 16, it is good also as a receptionist of other bills, such as a 2000 yen bill bill, a 5000 yen bill bill, and a 10000 yen bill bill, being possible, and may still be made not to limit this invention to this, and to enable a receptionist of two or more of these sorts of bills in the aforementioned example.

[0086] Moreover, what is necessary is not to limit this invention to this and for mixture conveyance of the aforementioned record medium and money to be just possible for it as a mechanism of these book passage, although the mixed conveyance way 14 is formed by the conveyance belt 23 and ****** 22 in the aforementioned example.

[0087] Moreover, this invention is not limited to this and the aforementioned card branch way 20 and its coin branch way 19 are mechanically good in these record media or money also as what can be conveyed, although it considers as that down which the IC card which is a record medium, and a coin can flow.

[0088] Moreover, although the frequency as valuable value is recorded on the IC card which is a record medium, these frequencies are read and loan processing is carried out in the aforementioned example this invention is not limited to this and records identification codes, such as ID beforehand given to the aforementioned IC card. By matching with this identification code (ID), registering valuable value, such

as frequency, into a management computer etc., and reading the aforementioned identification code (ID) May make it specify the valuable value registered into the aforementioned management computer etc., and Valuable value is registered and recorded on the both sides of these management computers and an IC card for the improvement in security, and the data of these both sides are compared at the time of use, and you may make it prevent injustice.

[0089] Moreover, although non-contact IC card 37 is used as a record medium in the aforementioned example this invention is not what is limited to this. make this into a contacted type IC card, or In specifying valuable value still as mentioned above, it being good also as a magnetic card and using an identification code (ID) Predetermined information record symbols, such as a bar code, etc. may be the media printed possible [reading] that what is necessary is just what can record at least information, such as ID which is the aforementioned identification information which can specify a record medium, possible [reading].

[0090] Moreover, although the IC card whose aforementioned card unit 3 is a prepaid card in the aforementioned example is inserted and loan processing is made, this invention may not be limited to this, and it may be the record medium in which **** of the aforementioned IC card, such as a member card, are possible, and you may also be that the game which uses these **** data again was played possible.

[0091] Moreover, although the reader writer which can be written in as a record-medium processing means is used in the aforementioned example in order to record new residual frequency on the IC card by which insertion is carried out [aforementioned], when residual frequency exists in the aforementioned frequency drop 5 and the aforementioned return button 6 is operated, this invention is not limited to this, reads these record-media processing means, and is good also as a thing of exclusive use.

[0092] Moreover, although each aforementioned judgment ways 30 and 31 are used, this invention is not limited to this and you may make it use other methods, equipment, etc. as these judgment means in the aforementioned example as a judgment means in aforementioned coin and card hold section 29.

[0093] Moreover, what is necessary is for this invention not to be limited to this and to make it make it in agreement with the amount of money so that a game person can grasp the valuable value for these games in money, to be good also considering the valuable value for these games as the point, the predetermined, corresponding number of pachinko balls, and the predetermined number of coin, and just to choose the form arbitrarily further, in the aforementioned example, although frequency is used as a form of the valuable value for games.

[0094] Moreover, in the aforementioned example, although the pachinko ball is used as a game medium, if these game medium is a medium used [in / a game / it is good also as the pachinko ball formed by the picture / in / coin, mark, a pachinko machine a slot machine of a picture formula that are mentioned further later etc. / for these game medium], coin, etc., and], it will not be contained in the game medium of this

invention, and the form will not be limited

[0095] Moreover, although the usual pachinko machine 2 which the pachinko ball which is a game medium as a game machine pays out outside is used in the aforementioned example The slot machine which performs a game not only using a pachinko machine usual [these] in this invention but using coin, Without discharging a pachinko ball and coin outside The pachinko machine and slot machine of a filled system in which a game is possible, With data etc., without furthermore using these game medium The game machine in which a game is possible, To say nothing of the ability to apply to the pachinko machine of the picture formula as which the game board and a pachinko ball are displayed by the picture, and the slot machine of a picture formula with which a reel is displayed by the picture, either, these game machine is not limited.

[0096]

[Effect of the Invention] this invention does the following effect so.

[0097] (a) The coin which were collected from the aforementioned equipment for games according to invention of a claim 1, Since this passage which conveys a bill and a record medium in the aforementioned judgment hold section is formed in the 1st passage which carries out mixture conveyance of a coin and the record medium, and this passage where the 2nd passage which conveys only a bill is individual Since recovery by the other side is possible even if an obstacle occurs temporarily, the damage of the amusement center accompanying these obstacles can be suppressed to the minimum.

[0098] (b) According to invention of a claim 2, the number of each of these needed passage can be made into the minimum, and the structure of equipment will become simpler and the maintenance nature's can improve.

[0099] (c) According to invention of a claim 3, the aforementioned record medium can prevent joining the aforementioned 1st passage and damaging at too much speed.

[0100] (d) According to invention of a claim 4, in the unification to about [that the aforementioned speed regulation means can be formed with simple structure] and the 1st passage, the aforementioned record medium does not produce plugging in conveyance in the 1st passage, without being accompanied by electric drive etc.

[0101] (e) According to invention of a claim 5, the aforementioned discharge coin can prevent breakage of this record medium by colliding with the aforementioned record medium which has the aforementioned 1st passage conveyed at too much speed.

[0102] (f) According to invention of a claim 6, the aforementioned flowing-down speed regulation means can be formed with simple structure, without being accompanied by electric drive etc., and maintenance nature also improves.

[0103] (g) Since according to invention of a claim 7 the number of the aforementioned 2nd branch way connected to the aforementioned 1st passage decreases and the structure of the facility [itself] can be simplified, the

maintenance nature of the facility equipment for games can be improved.
[0104] (h) according to invention of a claim 8, a record medium discharges more nearly simultaneous than each record-medium processing meanses of both -- having -- aforementioned every -- it can prevent getting a record medium blocked with the unification section of the 2nd branch way
[0105] (i) According to invention of a claim 9, every classification of the coin in the aforementioned judgment hold section, a record medium, and a coin can be classified easily and certainly.
[0106] (j) According to invention of a claim 10, by enlarging a little from the thickness of the coin which has the aforementioned predetermined gap conveyed, or a record medium, when a coin and a record medium come to pass through this one gap at a time and about [that a lap is certainly cancelable] and the aforementioned rotation roller carries out drive rotation at the move direction and opposite direction of a conveyance way, neither a coin nor a record medium produces plugging in the aforementioned gap.
[0107] (k) according to invention of a claim 11 -- the aforementioned predetermined gap -- either a record medium or coin thickness -- the lap of both these record media and a coin is cancelable by considering as a bigger thing a little than the thickness of the thinner one
[0108] (l) According to invention of a claim 12, judgment with the aforementioned record medium and a coin can be certainly classified by the simple mechanism.
[0109] (m) the record medium which flows down this judgment way by it not being necessary to establish the mechanism in which movement of a record medium and a coin is performed in judgment, and preparing about [that it becomes possible to simplify the composition of the judgment hold section], and the aforementioned frictional resistance reduction member according to invention of a claim 13 -- a judgment on the street -- **** -- while being able to prevent things, that a blemish etc. reaches the front face of the aforementioned record medium can also prevent
[0110] (n) In order to supply the pore in the aforementioned judgment way in the state where it aligned without the coin which has the aforementioned 1st passage conveyed lapping according to invention of a claim 14, this conveyance coin can be classified certainly.
[0111] (o) According to invention of a claim 15, even if the aforementioned coins are two or more cases where classification existence is recognized, these coins can be classified and collected for every various exceptions, and the effort which the judgment work of these coins takes can be saved labor.
[0112] (p) According to invention of a claim 16, the recovery number of sheets or recovery frame of the collected coin, a bill, and a record medium can be grasped serially.
[0113] (q) According to invention of a claim 17, the position of the judgment hold section in which the aforementioned judgment hold section projects and bends to the exterior of a game island, and about [that the fine sight of a game island can be

improved], the aforementioned recovery coin, and a recovery bill are held from things can be made unclear for a third person, and a theft etc. can be prevented.

[Translation done.]

* NOTICES *

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1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the perspective diagram showing the game island in the example of this invention.
[Drawing 2] It is the perspective diagram showing the internal structure of the game island in the example of this invention.
[Drawing 3] It is the front view showing the pachinko machine used in the example of this invention, and a card unit.
[Drawing 4] It is the cross section showing the composition of IC card reader writer used for the card unit in the example of this invention.
[Drawing 5] It is the ****** type view showing the composition of the mixed conveyance way in the example of this invention, and the coin and the card hold section.
[Drawing 6] It is a cross-section A-A cross section in drawing 5 .
[Drawing 7] It is the perspective diagram showing the unification section of the mixed conveyance way and each branch way in the example of this invention.
[Drawing 8] It is the perspective diagram showing each lap dissolution unit and alignment unit in an example of this invention.
[Drawing 9] It is the perspective diagram showing the coin and the card hold section in the example of this invention.
[Drawing 10] It is the perspective diagram showing each judgment way used for a coin and the card hold section in the example of this invention.
[Drawing 11] It is drawing showing the internal situation of the recovery box in the example of this invention.
[Drawing 12] It is drawing showing the control panel formed in the interior of the

control box in the example of this invention.
[Drawing 13] It is the block diagram showing the connection situation of the various devices in the example of this invention.
[Drawing 14] It is the cross section showing a connection situation with the card unit, the bill conveyance way, and the mixed conveyance way in the example of this invention.
[Drawing 15] It is the cross section showing a connection situation with the card unit, the bill conveyance way, and the mixed conveyance way in the example of this invention.
[Drawing 16] It is the perspective diagram showing the tension roller as a gestalt of others of the lap dissolution means in the example of this invention.
[Description of Notations]
1 Game Island
2 Pachinko Machine
3 Card Unit (Equipment for Games)
4 Recovery Box
5 Frequency Drop
6 Return Button
7 Loan Button
8 Card Slot
9 Coin Input Port
10 Coin Return Button
11 Payment Button
12 Stop Button
13 Return Mouth
14 Mixed Conveyance Way (1st Passage)
15 Control Box
16 IC Card Reader Writer (Record-Medium Processing Means)
17 Coin Discernment Unit (Coin Processing Means)
18 Return Path
19 Card Branch Way (2nd Branch Way)
20 Coin Branch Way (1st Branch Way)
21 Signal Cable
22 ******
23 Conveyance Belt (Conveyance Way)
24 Drive Motor
25 Timing Belt
26 Drive Roller
27 Construction Roller
28 Guide Idler
29 Coin and Card Hold Section (Judgment Hold Section)
30 Card Judgment Way (Judgment Way)

31 Coin Judgment Way
32 Card Recovery Box
33 500 Yen Coin Recovery Box
33' Guide
34 100 Yen Coin Recovery Box
34' Guide
35 Coin Unification Unit (Flowing-Down Speed Regulation Means)
36 Unification Guide (Speed Regulation Means)
37 Coin Lap Dissolution Unit (Lap Dissolution Means)
37' Electrode holder
38 Alignment Unit (Alignment Means)
38' Electrode holder
39 Card Lap Dissolution Unit (Lap Dissolution Means)
39' Electrode holder
40 Specification-Part Material
41 Roller (Rotation Roller)
42 Drive Motor
43 Alignment Board
44 Flange Roller (Rotation Roller)
45 Drive Motor
46 Pore
47 Card Sensor (Sensor)
48 Coin Sensor (500 Yen) (Sensor)
49 Coin Sensor (100 Yen) (Sensor)
50 Teflon Sheet (Frictional Resistance Reduction Member)
51a Flowing-down guide
51b Flowing-down guide
52 Judgment Pore
53 Plate
55 Operation Button
56 Unusual Lamp
57 Card Number-of-Sheets Drop
58 500 Yen Ball Number-of-Sheets Drop
59 100 Yen Ball Number-of-Sheets Drop
60 Line Indicator
61 Power Supply Breaker
62 Earth Switch
63 Operation Lamp
65 Roller
66 Drive Motor
67 Timing Belt
68 Adjustment Roller

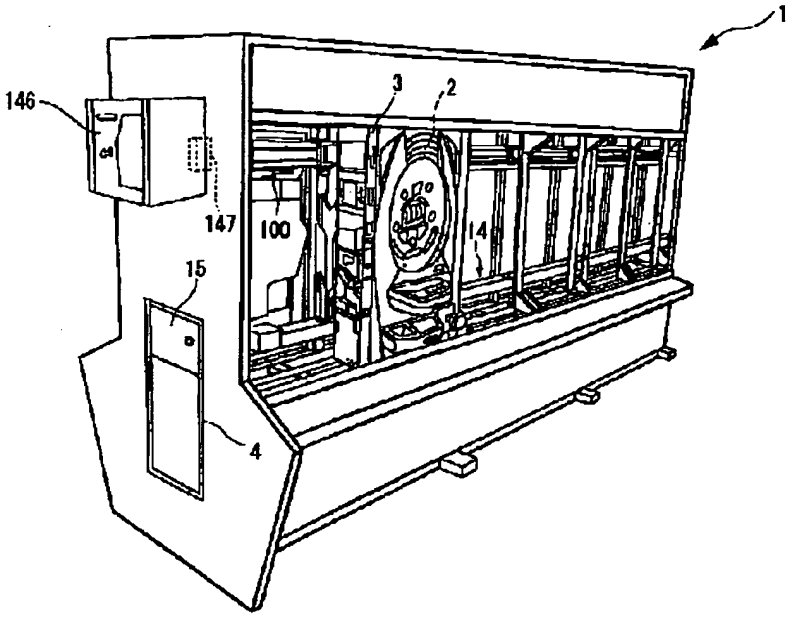
69 Slide Board
70 Energization -- Member
86 Drive Motor
87 Conveyance Roller
88 Conveyance Roller
89 Electromagnetism -- Solenoid
90 Communication Head
91 Conveyance Belt
92 Control Board
93 Drive Motor
94 Free Roller
95 Exhaust Port
97 Insertion Sensor
98 Guide Rail
100 Bill Conveyance Way (2nd Passage)
101 Slot for Bills
102 Bill Discernment Unit (Bill Processing Means)
103 Bill Exhaust Port
104 Bill Branch Way (3rd Branch Way)
105 Coin Exhaust Port
141 Connection Unit
144 Conveyance Unit
145 Drive Motor
146 Bill Hold Section (Judgment Hold Section)
147 Bill Sensor (Sensor)
148 1000 Yen Bill Number-of-Sheets Drop

[Translation done.]

* NOTICES *

DRAWINGS

[Drawing 1]



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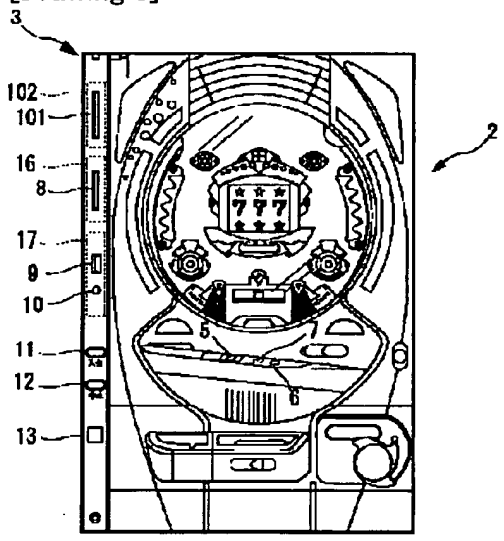

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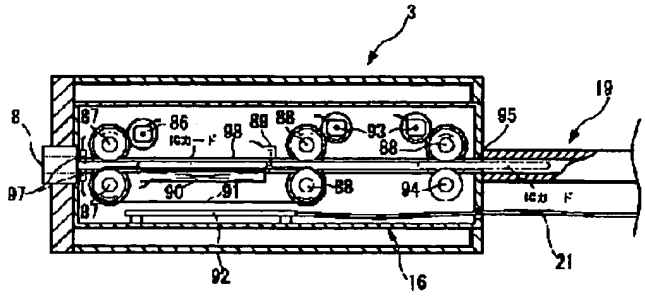

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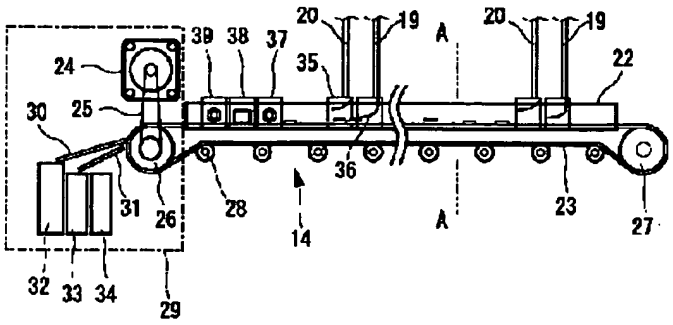

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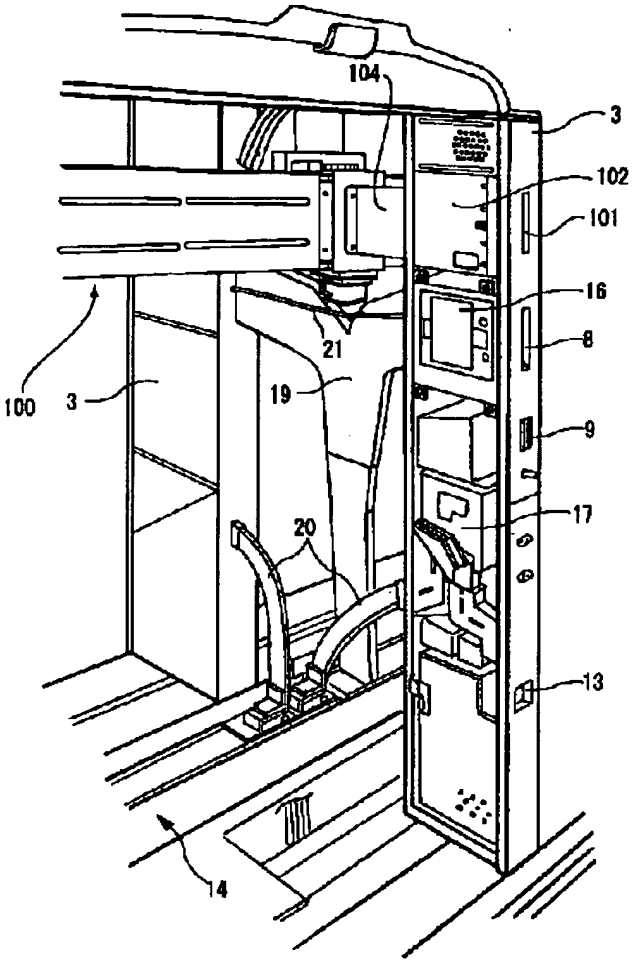

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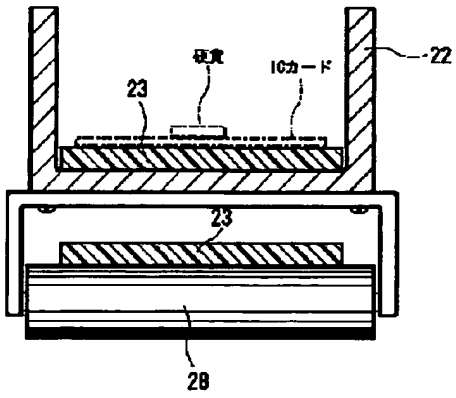

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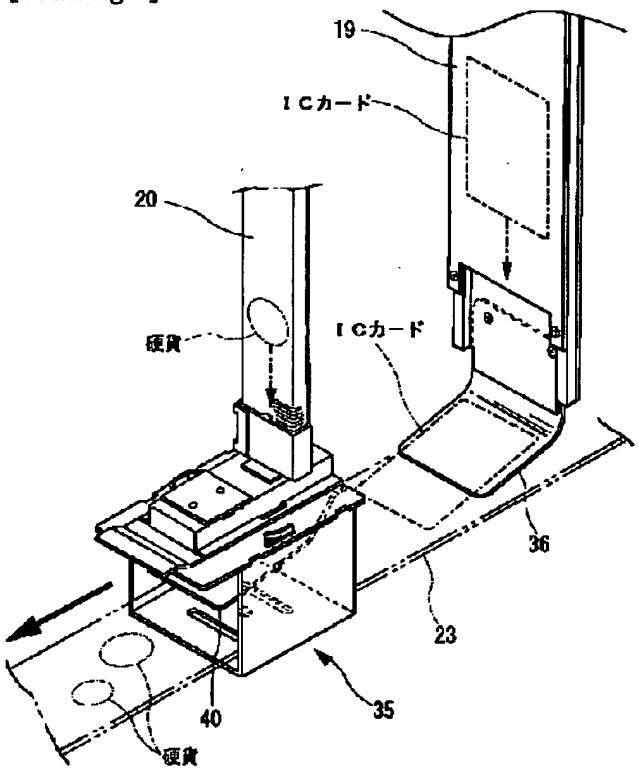

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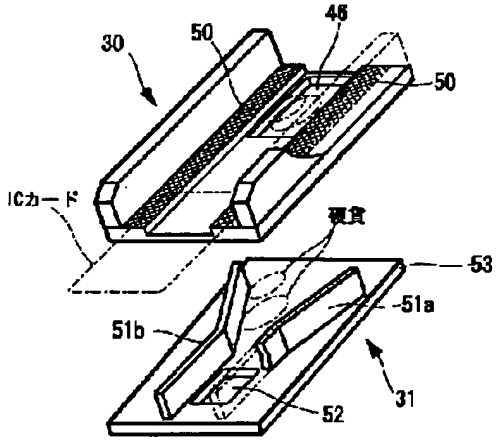

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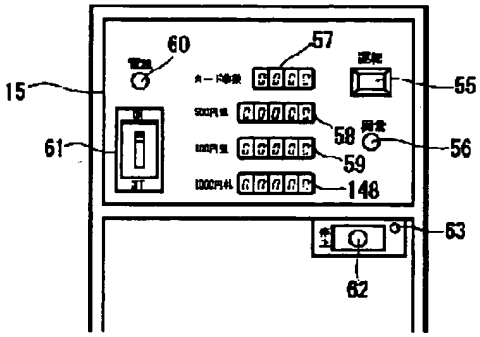

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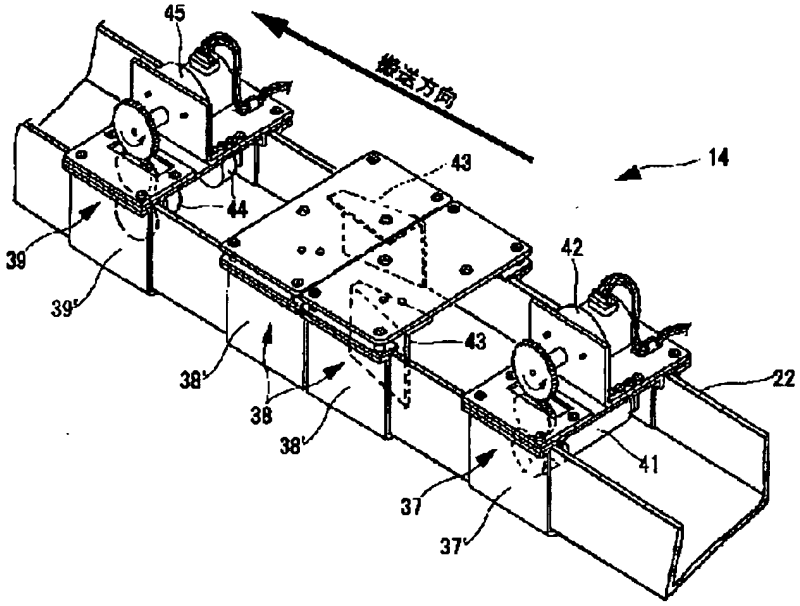

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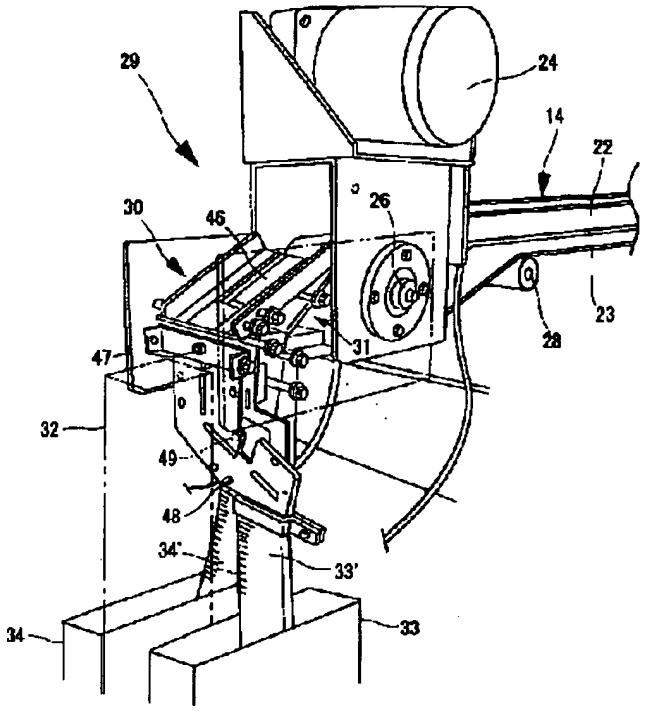

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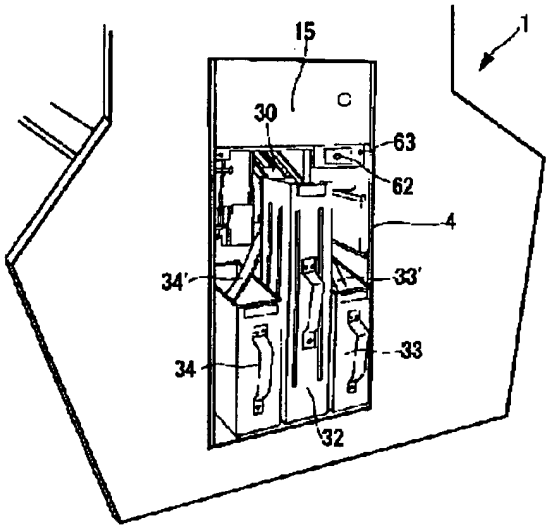
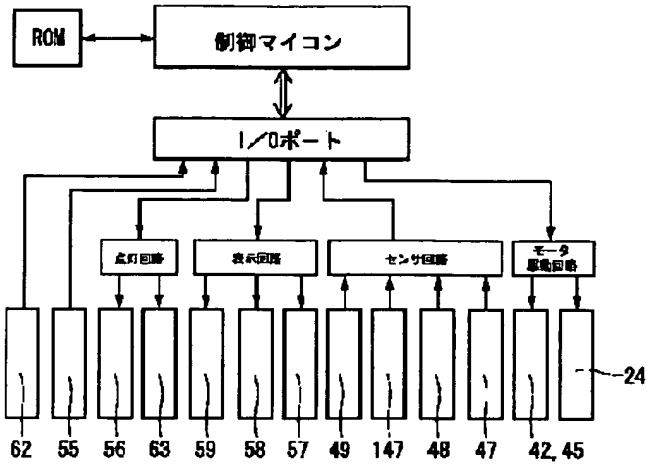


[Drawing 13]



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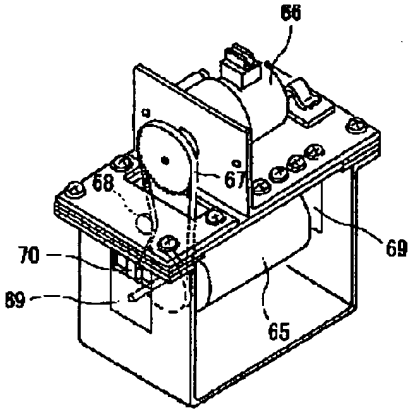

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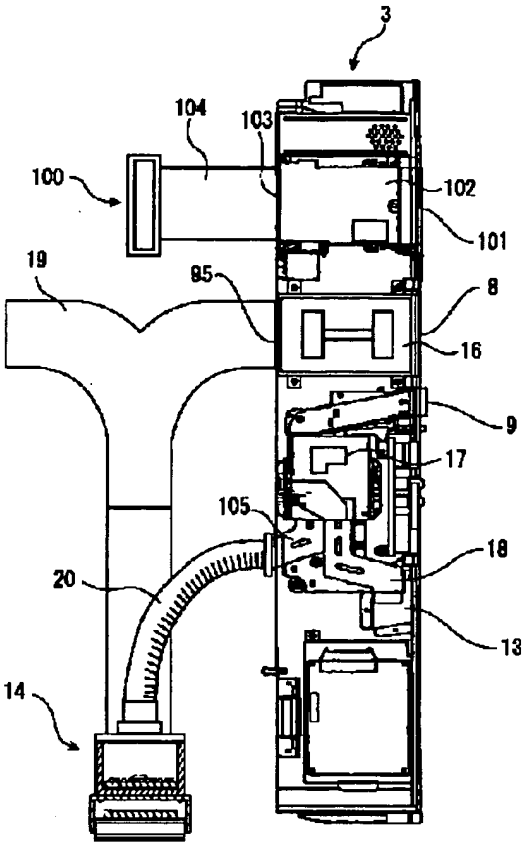

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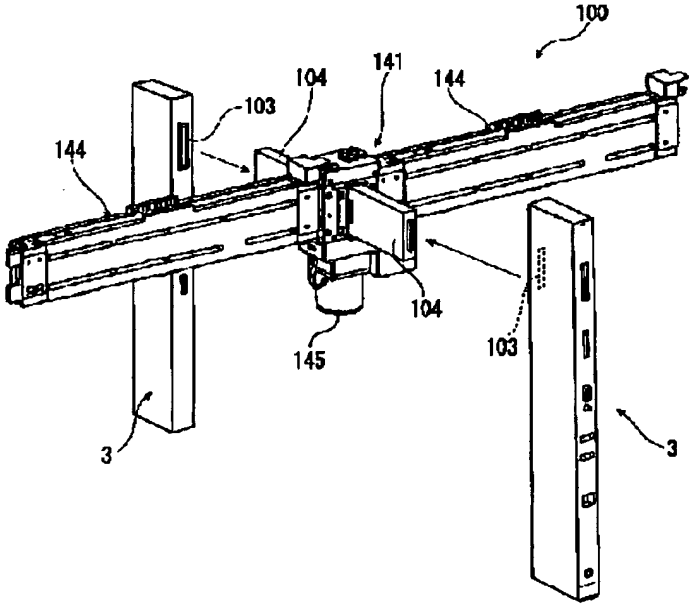

[Translation done.]

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Ａ６３Ｆ　7/02	３５２	Ｂ４２Ｄ　15/10	５２１	２Ｃ０８８
Ｂ４２Ｄ　15/10	５２１	Ｇ０６Ｋ　17/00	Ｒ	３Ｅ００１
Ｇ０６Ｋ　17/00		Ｇ０７Ｄ　9/00	ＧＢＶ	３Ｅ０４０
Ｇ０７Ｄ　9/00	ＧＢＶ		３０６	３Ｅ０４４

審査請求　未請求　請求項の数17　ＯＬ　（全 17 頁）　最終頁に続く

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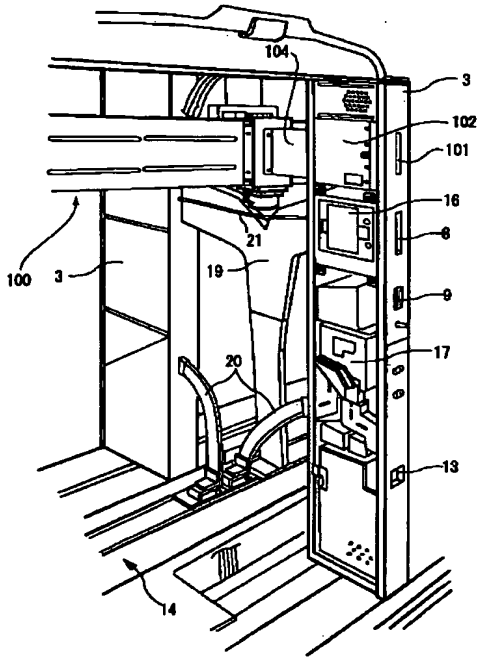
(54)【発明の名称】　遊技用設備装置

(57)【要約】　（修正有）
【課題】　仮に搬送路において障害が生じても、該障害による被害を最小限に抑える。
【解決手段】　受付けた硬貨を識別する硬貨処理手段１７と、受付けた紙幣を識別する紙幣処理手段１０２と、受付けた記録媒体から特定される有価価値の大きさを遊技に使用させるための処理を実行するとともに、所定の回収条件の成立に基づいて前記受付けた記録媒体を外部に排出する記録媒体処理手段１６と、を備える遊技用装置３と、前記排出された硬貨、紙幣並びに記録媒体を個別に分別して収容する分別収容部に混在搬送するための第１本流路１４と、紙幣を搬送するための第２本流路１００と、前記排出硬貨が合流するように前記第１本流路１４とを繋ぐ第１支流路２０と、前記排出記録媒体が前記第１本流路１４に合流するように前記第１本流路１４とを繋ぐ第２支流路１９と、前記排出紙幣が前記第２本流路１００に合流するように前記第２本流路１００とを繋ぐ第３支流路１０４と、から成る。



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【特許請求の範囲】

【請求項１】　受付けた硬貨を識別してその硬貨価値の大きさに伴う所定の処理を実行するとともに、該識別硬貨を外部に排出する硬貨処理手段と、受付けた紙幣を識別してその紙幣価値の大きさに伴う所定の処理を実行するとともに、該識別紙幣を外部に排出する紙幣処理手段と、受付けた記録媒体に記録されている情報を少なくとも読み取ることで該記録情報から特定される有価価値の大きさを遊技に使用させるための処理を実行するとともに、所定の回収条件の成立に基づいて前記受付けた記録媒体を外部に排出する記録媒体処理手段と、を備える遊技用装置と、該遊技用装置と離れた所定位置に設けられ、前記排出された硬貨、紙幣並びに記録媒体を個別に分別して収容する分別収容部と、前記硬貨処理手段より排出される硬貨並びに前記記録媒体処理手段より排出される記録媒体とを前記分別収容部に混在搬送するための第１本流路と、前記紙幣処理手段より排出される紙幣を前記分別収容部へ搬送するための第２本流路と、前記排出硬貨が前記第１本流路に合流するように前記硬貨処理手段と前記第１本流路とを繋ぐ第１支流路と、前記排出記録媒体が前記第１本流路に合流するように前記記録媒体処理手段と前記第１本流路とを繋ぐ第２支流路と、前記排出紙幣が前記第２本流路に合流するように前記紙幣処理手段と前記第２本流路とを繋ぐ第３支流路と、から成ることを特徴とする遊技用設備装置。

【請求項２】　前記各本流路を挟んで対向する位置に設けられた前記遊技用装置の各支流路が、各支流路が対応する同一の本流路に接続されている請求項１に記載の遊技用設備装置。

【請求項３】　前記第２支流路は、前記排出記録媒体が流下可能に形成されるとともに、該記録媒体の前記第１本流路への合流速度を規制する速度規制手段を具備する請求項１または２に記載の遊技用設備装置。

【請求項４】　前記速度規制手段が、前記第２支流路の前記第１本流路との合流部形状を前記第１本流路の搬送方向に沿って適宜湾曲させることで形成されている請求項３に記載の遊技用設備装置。

【請求項５】　前記第１支流路は、前記排出硬貨が流下可能に形成されるとともに、該硬貨の流下速度を規制する流下速度規制手段を具備する請求項１～４のいずれかに記載の遊技用設備装置。

【請求項６】　前記流下速度規制手段は、前記第１支流路の前記第１本流路との合流部に流下する硬貨が衝突可能に配置された規制部材にて形成されている請求項５に記載の遊技用設備装置。

【請求項７】　前記第１本流路を挟んで対向する位置に設けられた前記記録媒体処理手段に繋がる前記各第２支流路が、合流して１本の第２支流路を形成して前記第１本流路に接続されている請求項１～６のいずれかに記載の遊技用設備装置。

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【請求項８】　前記合流する第２支流路に繋がる前記各記録媒体処理手段が互いに信号授受可能に接続され、他方の記録媒体処理手段が記録媒体の排出処理中である旨の信号を出力している際には、記録媒体の排出を実施しない請求項７に記載の遊技用設備装置。

【請求項９】　前記第１本流路を搬送される硬貨と記録媒体の重なりおよび硬貨同志または記録媒体同志の重なりを解消する重なり解消手段を、前記分別収容部の上流部所定位置に設けた請求項１～８のいずれかに記載の遊技用設備装置。

【請求項１０】　前記重なり解消手段が、前記第１本流路を構成する搬送路と所定の間隙を有して配置され、該搬送路の移動方向と反対方向に駆動回転された回転ローラにより形成されている請求項９に記載の遊技用設備装置。

【請求項１１】　前記回転ローラが、前記搬送路との間隙が変化可能に付勢されたテンションローラである請求項１０に記載の遊技用設備装置。

【請求項１２】　前記分別収容部には、前記記録媒体は通過可能であって硬貨は落下する所定の大きさの孔部を有する分別路が設けられている請求項１～１１のいずれかに記載の遊技用設備装置。

【請求項１３】　前記分別路は、硬貨および記録媒体が流下可能な斜路であって、該分別路表面に摩擦抵抗を低減する摩擦抵抗低減部材が形成されている請求項１２に記載の遊技用設備装置。

【請求項１４】　前記分別路における孔部の配置位置に対応する位置に、前記第１本流路を搬送される硬貨を整列する整列手段を、前記重なり解消手段の下流部に有する請求項１２または１３に記載の遊技島。

【請求項１５】　前記分別路より落下した硬貨を、該硬貨の外径に基づき各種別毎に分別可能な硬貨分別路を具備する請求項１２～１４のいずれかに記載の遊技用設備装置。

【請求項１６】　分別された硬貨、紙幣および記録媒体の検出を行うセンサを前記分別収容部に具備するとともに、該センサによる検出に基づき回収枚数または回収金額を計数する計数手段を具備する請求項１～１５のいずれかに記載の遊技用設備装置。

【請求項１７】　前記遊技用設備装置は、遊技機が設置された遊技島に配設されており、前記分別収容部が前記遊技島内部に収納されて配置されている請求項１～１６のいずれかに記載の遊技用装置。

【発明の詳細な説明】

【０００１】

【発明の属する技術の分野】本発明は、パチンコ機やスロットマシン等の遊技機間等に該遊技機に対応して設けられ、貨幣およびプリペイドカード等の記録媒体が投入および挿入可能とされたカードユニット等の遊技用装置より、前記投入された貨幣並びにプリペイドカード等の

記録媒体を収集して回収することのできる遊技用設備装置に関する。

【０００２】

【従来の技術】近年、遊技場に設置された遊技島においてパチンコ機等の遊技機に対応して設けられて遊技媒体であるパチンコ玉等の貸出を行う貸出処理装置としては、予め所定の金額分の遊技媒体を借りられるようにしたプリペイドカード等の記録媒体を使用して貸出を行うものが多く用いられている。

【０００３】これらプリペイドカード等の記録媒体を使用する貸出処理装置においては、従来の貨幣の投入にて遊技媒体の貸出がなされる貸出処理装置に比較して、該貸出処理装置に投入された貨幣の回収を省くことが可能となるという利点を有するが、これらプリペイドカード等の記録媒体の発行（販売）装置は、通常遊技島の端部等に設置されることが多く、このためプリペイドカードの全額を使用してしまって新たに追加購入する場合には、遊技者は遊技を中断して前記発行（販売）装置まで逐次出向く必要があり、不便であって遊技者の遊技に関する興味を低下させてしまうばかりか、これら追加購入のために離席する場合には、その遊技機が稼動せずに占拠された状態となってしまうことから、遊技場にとっても遊技機の稼動率が低下してしまうという問題があった。

【０００４】このため、近年においてはこの問題解消する手段として、前記プリペイドカード等の記録媒体が使用可能なカードユニット等の遊技用装置に、該記録媒体の発行機能や貨幣の投入によっても遊技媒体の貸出が受けられる機能を付与したもの、或いはこれら投入貨幣の価値に対応する遊技用有価価値を前記プリペイドカード等の記録媒体に残存する遊技用有価価値に加算更新できるような追加入金機能を付与したものが多く検討されるようになってきている。

【０００５】これら記録媒体および貨幣の双方を投入可能な遊技用装置を用いる場合には、これら投入貨幣の回収や前記記録媒体の回収等による労力の省力化を図ることを目的として、これらの回収機構を設けることが考えられるが、これら回収機構を設ける場合においては、前記遊技用装置であるカードユニットや遊技機等が設置される遊技島の内部には、遊技媒体であるパチンコ玉の供給樋等や各種接続ケーブル等が複雑に配置されていることから、従来においては極力少ない搬送路、つまりは搬送路を１本として回収物であるプリペイドカードや貨幣である硬貨並びに紙幣の全てを混在して搬送することが多く提案されてきている。

【０００６】

【発明が解決しようとする課題】しかしながら、このように搬送路を１本として回収物の全てを混在搬送する場合においては、唯一の搬送路に搬送障害等が発生すると、前記遊技用装置の全ての機能が使用できなくなってしまう場合があり、このような場合においては、遊技場の被害が甚大なものになってしまうという問題があった。

【０００７】よって、本発明は上記した問題点に着目してなされたもので、仮に搬送路において障害が生じても、該障害による被害を最小限に抑えることのできる遊技用設備装置を提供することを目的としている。

【０００８】

【課題を解決するための手段】前記した問題を解決するために、本発明の遊技用設備装置は、受付けた硬貨を識別してその硬貨価値の大きさに伴う所定の処理を実行するとともに、該識別硬貨を外部に排出する硬貨処理手段と、受付けた紙幣を識別してその紙幣価値の大きさに伴う所定の処理を実行するとともに、該識別紙幣を外部に排出する紙幣処理手段と、受付けた記録媒体に記録されている情報を少なくとも読み取ることで該記録情報から特定される有価価値の大きさを遊技に使用させるための処理を実行するとともに、所定の回収条件の成立に基づいて前記受付けた記録媒体を外部に排出する記録媒体処理手段と、を備える遊技用装置と、該遊技用装置と離れた所定位置に設けられ、前記排出された硬貨、紙幣並びに記録媒体を個別に分別して収容する分別収容部と、前記硬貨処理手段より排出される硬貨並びに前記記録媒体処理手段より排出される記録媒体とを前記分別収容部に混在搬送するための第１本流路と、前記紙幣処理手段より排出される紙幣を前記分別収容部へ搬送するための第２本流路と、前記排出硬貨が前記第１本流路に回収されるように前記硬貨処理手段と前記第１本流路とを繋ぐ第１支流路と、前記排出記録媒体が前記第１本流路に回収されるように前記記録媒体処理手段と前記第１本流路とを繋ぐ第２支流路と、前記排出紙幣が前記第２本流路に回収されるように前記紙幣処理手段と前記第２本流路とを繋ぐ第３支流路と、から成ることを特徴としている。この特徴によれば、前記遊技用装置より回収された硬貨、紙幣並びに記録媒体を前記分別収容部に搬送する本流路が、硬貨と記録媒体を混在搬送する第１本流路と紙幣のみを搬送する第２本流路の個別の本流路にて形成されているために、仮に一方に障害が発生しても他方側による回収が可能であることから、これら障害に伴う遊技場の被害を最小限に抑えることができる。

【０００９】本発明の遊技用設備装置は、前記各本流路を挟んで対向する位置に設けられた前記遊技用装置の各支流路が、各支流路が対応する同一の本流路に接続されていることが好ましい。このようにすれば、必要となる各本流路の数を最小限とすることができ、装置の構造がより簡素なものとなってそのメンテナンス性も向上できる。

【００１０】本発明の遊技用設備装置は、前記第２支流路は、前記排出記録媒体が流下可能に形成されるとともに、該記録媒体の前記第１本流路への合流速度を規制す

る速度規制手段を具備することが好ましい。このようにすれば、前記記録媒体が過度の速度にて前記第１本流路に合流して破損することを防止することができる。

【００１１】本発明の遊技用設備装置は、前記速度規制手段が、前記第２支流路の前記第１本流路との合流部形状を前記第１本流路の搬送方向に沿って適宜湾曲させることで形成されていることが好ましい。このようにすれば、電気的な駆動等を伴うことなく簡便な構造にて前記速度規制手段を形成することができるばかりか、第１本流路への合流において前記記録媒体が第１本流路における搬送に詰まりを生じることもない。

【００１２】本発明の遊技用設備装置は、前記第１支流路は、前記排出硬貨が流下可能に形成されるとともに、該硬貨の流下速度を規制する流下速度規制手段を具備することが好ましい。このようにすれば、前記排出硬貨が過度の速度にて前記第１本流路を搬送される前記記録媒体に衝突することによる該記録媒体の破損を防止できる。

【００１３】本発明の遊技用設備装置は、前記流下速度規制手段は、前記第１支流路の前記第１本流路との合流部に流下する硬貨が衝突可能に配置された規制部材にて形成されていることが好ましい。このようにすれば、電気的な駆動等を伴うことなく簡便な構造にて前記流下速度規制手段を形成することができ、メンテナンス性も向上する。

【００１４】本発明の遊技用設備装置は、前記第１本流路を挟んで対向する位置に設けられた前記記録媒体処理手段に繋がる前記各第２支流路が、合流して１本の第２支流路を形成して前記第１本流路に接続されていることが好ましい。このようにすれば、前記第１本流路に接続される前記第２支流路の本数が減少し、設備自体の構造を簡素化できるようになるため、遊技用設備装置のメンテナンス性を向上できる。

【００１５】本発明の遊技用設備装置は、前記合流する第２支流路に繋がる前記各記録媒体処理手段は互いに信号授受可能に接続され、他方の記録媒体処理手段が記録媒体の排出処理中である旨の信号を出力している際には、記録媒体の排出を実施しないことが好ましい。このようにすれば、双方の各記録媒体処理手段より同時に記録媒体が排出されて前記各第２支流路の合流部にて記録媒体が詰まることを防止できる。

【００１６】本発明の遊技用設備装置は、前記第１本流路を搬送される硬貨と記録媒体の重なりおよび硬貨同志または記録媒体同志の重なりを解消する重なり解消手段を、前記分別収容部の上流部所定位置に設けることが好ましい。このようにすれば、前記分別収容部における硬貨と記録媒体および硬貨の種別毎の分別を容易にしかも確実に実施できる。

【００１７】本発明の遊技用設備装置は、前記重なり解消手段が、前記第１本流路を構成する搬送路と所定の間

隙を有して配置され、該搬送路の移動方向と反対方向に駆動回転された回転ローラにより形成されていることが好ましい。このようにすれば、前記所定の間隙を搬送される硬貨や記録媒体の厚みより若干大きくすることにより、該間隙を硬貨や記録媒体が１枚づつ通過するようになって重なりを確実に解消できるばかりか、前記回転ローラが搬送路の移動方向と反対方向に駆動回転することにより、前記間隙に硬貨や記録媒体が詰まりを生じてしまうこともない。

【００１８】本発明の遊技用設備装置は、前記回転ローラが、前記搬送路との間隙が変化可能に付勢されたテンションローラであることが好ましい。このようにすれば、前記所定の間隙を記録媒体または硬貨厚みのいずれか薄い方の厚みより若干大きなものとすることで、これら記録媒体および硬貨双方の重なりを解消することができる。

【００１９】本発明の遊技用設備装置は、前記分別収容部には、前記記録媒体は通過可能であって硬貨は落下する所定の大きさの孔部を有する分別路が設けられていることが好ましい。このようにすれば、前記記録媒体と硬貨との分別を簡便な機構にて確実に分別することができる。

【００２０】本発明の遊技用設備装置は、前記分別路は、硬貨および記録媒体が流下可能な斜路であって、該分別路表面に摩擦抵抗を低減する摩擦抵抗低減部材が形成されていることが好ましい。このようにすれば、分別において記録媒体や硬貨の移動を行う機構を設ける必要がなく、分別収容部の構成を簡素化することが可能となるばかりか、前記摩擦抵抗低減部材を設けることで、該分別路を流下する記録媒体が分別路上に止ることを防止できるとともに、前記記録媒体の表面に傷等がつくことも防止できる。

【００２１】本発明の遊技用設備装置は、前記分別路における孔部の配置位置に対応する位置に、前記第１本流路を搬送される硬貨を整列する整列手段を、前記重なり解消手段の下流部に有することが好ましい。このようにすれば、前記第１本流路を搬送される硬貨が重なることなく整列された状態にて前記分別路における孔部に供給されるようになるため、該搬送硬貨を確実に分別することができる。

【００２２】本発明の遊技用設備装置は、前記分別路より落下した硬貨を、該硬貨の外径に基づき各種別毎に分別可能な硬貨分別路を具備することが好ましい。このようにすれば、前記硬貨が複数の種別存在する場合であっても、これら硬貨を各種別毎に分別して回収することができ、これら硬貨の分別作業に要する労力を省力化できる。

【００２３】本発明の遊技用設備装置は、分別された硬貨、紙幣および記録媒体の検出を行うセンサを前記分別収容部に具備するとともに、該センサによる検出に基づ

き回収枚数または回収金額を計数する計数手段を具備することが好ましい。このようにすれば、回収された硬貨、紙幣および記録媒体の回収枚数または回収金額を逐次把握することができる。

【００２４】本発明の遊技用設備装置は、前記遊技用設備装置は、遊技機が設置された遊技島に配設されており、前記分別収容部が前記遊技島内部に収納されて配置されていることが好ましい。このようにすれば、前記分別収容部が遊技島の外部に突出しないことから、遊技島の美観を向上できるばかりか、前記回収硬貨や回収紙幣が収容される分別収容部の位置を第三者に判りにくくでき、盗難等も防止できる。

【００２５】

【発明の実施の形態】以下、図面に基づいて本発明の実施形態を説明する。尚、以下の実施例においては、遊技機としてパチンコ機を用いた例を示すが、本発明はこれに限定されるものではなく、その他の遊技機、例えばスロットマシン等の遊技機においても適用可能である。

【００２６】（実施例）図１は、本実施例の遊技島１を示す外観斜視図であり、遊技島１は、その両側面に遊技機としてのパチンコ機２と、該パチンコ機２の側部位置に設置される遊技用装置としてのカードユニット３と、が並設可能とされており、該遊技島１内部の前記両側面のパチンコ機２並びにカードユニット３に挟まれた略中央部下方位置には、各カードユニット３から排出される記録媒体であるＩＣカード（プリペイドカード）並びに硬貨とを該遊技島の一方側へ搬送可能とされた第１本流路としての混合搬送路１４が設けられ、該混合搬送路１４の搬送方向の遊技島１端面には、その内部に本発明の分別収容部を構成する硬貨・カード収容部２７が配置された回収ボックス４と、これら回収された硬貨やＩＣカード、後述の紙幣収容部１４６にて回収された紙幣の枚数等が表示される表示装置等を備えた制御ボックス１５と、が遊技島１内部に収納される形にて設けられている。

【００２７】また、前記遊技島１内部の前記両側面のパチンコ機２並びにカードユニット３に挟まれた略中央部上方位置には、各カードユニット３から排出される紙幣を前記混合搬送路１４の搬送方向と同一方向へ搬送可能とされた第２本流路としての紙幣搬送路１００が設けられ、該紙幣搬送路１００の搬送方向の遊技島１端面には、その外部に前記紙幣搬送路１００にて搬送された紙幣を回収する本発明の分別収容部を構成する紙幣収容部１４６が設けられている。

【００２８】尚、本実施例では、図１に示すように、紙幣収容部１４６が遊技島１の島端において外方に突出する態様にて設けられているが、本発明はこれに限定されるものではなく、前記硬貨・カード収容部２９並びに紙幣収容部１４６の双方を遊技島１の内部に収容するようにしても良く、これにより、各収容部が遊技島１の外部に突出しないことから、遊技島１の美観を向上できるばかりか、回収された硬貨や紙幣が収容される分別収容部としての硬貨・カード収容部２９並びに紙幣収容部１４６の位置を第三者に判りにくくでき、盗難等も防止できる。

【００２９】また、本実施例では、混合搬送路１４を搬送された硬貨とＩＣカードとを個々に分別・収容する硬貨・カード収容部と、紙幣搬送路１００を搬送された紙幣を収容する紙幣収容部１４６と、から本発明の分別収容部が構成されているが、本発明はこれに限定されるものではなく、少なくとも、混合搬送路１４並びに紙幣搬送路１００にて搬送されてきた硬貨と紙幣とＩＣカードとを分別して収容できるようになっていれば良く、例えば、これらを一体の分別収容部として構成して遊技島１内部の省スペース化を図るようにしても良い。

【００３０】本実施例に用いたパチンコ機２及びカードユニット３について、図２および図３に基づいて説明すると、該パチンコ機２の前面に突設する態様にて設けられた上皿には、遊技者が貸出を受けたい場合に操作する貸出ボタン７と、遊技を終了する際に操作する返却ボタン６と、前記ＩＣカードに記録された情報に基づき特定される有価価値である度数を表示する度数表示器５と、が設けられていて、前記度数表示器５に度数が存在する際に前記貸出ボタン７を操作することにより所定数のパチンコ玉が前記上皿に排出されるようになっていて、前記ＩＣカードを用いて遊技を実施可能とされた一般的なカードリーダ式パチンコ機である。

【００３１】このパチンコ機２の側部位置に該パチンコ機２と接続されて設置される前記カードユニット３の前面には、図３に示すように、紙幣挿入口１０１と、プリペイドカードとして用いられる非接触式のＩＣカードが挿入可能とされたカード挿入口８と、硬貨投入口９と、投入した貨幣の返却を行う際に操作される硬貨返却ボタン１０と、投入された金額を追加入金する際に操作される入金ボタン１１と、該追加入金の中止を行う際に操作される中止ボタン１２と、前記投入された硬貨の返却口１３とが設けられている。また、その内部には、図２並びに図１４に示すように、前記紙幣挿入口１０１に連設されて投入紙幣の識別を実施する紙幣処理手段としての紙幣識別ユニット１０２と、前記カード挿入口８に連設され挿入される前記ＩＣカードに記録された各種情報の読み出しおよび書き込み可能な記録媒体処理手段としてのＩＣカードリーダライタ１６と、前記硬貨投入口９に連設されて投入硬貨の識別を実施する硬貨処理手段としての硬貨識別ユニット１７とが設けられている。

【００３２】このカードユニット３は、前記挿入されたＩＣカードより前記ＩＣカードリーダライタ１６が非接触にて度数データ等の情報を読み出し、該度数を前記度数表示器５に表示させるとともに、前記貸出ボタン７の操作に基づき、所定数のパチンコ玉が貸し出されるよう

に所定のパルスを前記パチンコ機２に出力して該貸出玉数に該当する度数を減算して前記度数表示器５の表示を更新表示する貸出処理を実施し、前記ＩＣカードより読み出された度数が残存する場合に、紙幣または硬貨を投入することで、該投入された紙幣または硬貨の金額に基づく度数を前記残存する度数に加算更新する追加入金処理が実施可能とされている。

【００３３】前記本実施例にて用いたＩＣカードリーダライタ１６は、図４に示すような構成とされており、前記カード挿入口８からのＩＣカードの挿入を検知する挿入センサ９７や、前記カード挿入口８に延設され、ＩＣカードがスライド可能とされたガイドレール９８と、該ガイドレール９８を挟むように配設されて該ＩＣカードの移動を、駆動モータ８６、９３にて駆動回転されることにより実施する搬送ローラ８７、８８と、前記搬送ローラ８７、８８の一方側に張架された搬送ベルト９１と、から成る搬送機構や、該搬送されるＩＣカードを所定位置に停止させるストッブピンの出没を行う電磁ソレノイド８９や、所定位置に停止されたＩＣカードへの非接触による給電やデータ通信を行う通信ヘッド９０や、前記の各部に接続されてその制御を実施する制御基板９２が設けられているとともに、該ＩＣカードリーダライタ１６はカードユニット３の背面に露出していて、該露出面には前記搬送機構に連通するカード排出口９５が設けられている。また、図１４に示すように、前記カード排出口９５には前記混合搬送路１４に繋がるカード支流路１９（第２支流路）が連設されて、前記カード排出口９５より排出され、使用済となったＩＣカードが該カード支流路１９内部を流下して前記混合搬送路１４に排出されるようになっており、図中の９４は、自由回転により該移送を補助するフリーローラである。

【００３４】前記カード排出口９５よりＩＣカードが排出（回収）される回収条件としては、本実施例においては、前記度数表示器５の残度数が「０」となった場合において実施されるようになっているが、本発明はこれに限定されるものではなく、これら回収条件等は残度数が「０」となって所定時間の経過後とするように、任意に設定することができる。

【００３５】また、本実施例では、図２に示すように、前記カード支流路１９は略Ｙ字状とされて、前記本流路を挟んで対向する位置に配置されたカードユニット３の双方のＩＣカードリーダライタ１６に接続されていて、排出されるＩＣカードが合流して前記混合搬送路１４に排出されるようになっている。これら同一のカード支流路１９にて接続された各ＩＣカードリーダライタ１６は、信号ケーブル２１により、前記制御基板９２同志が信号授受可能に接続されていて、該制御基板９２は、前記カード排出口９５よりＩＣカードを排出する際には、該信号ケーブル２１に所定の排出信号が出力されていないことを確認するとともに該排出中において所定の排出信号を信号ケーブル２１に出力する制御を実施するようになっていて、双方のＩＣカードリーダライタ１６より同時にＩＣカードが排出されて、前記カード支流路１９の合流部にＩＣカードが詰まることを防止するようになっている。

【００３６】本実施例では前記したように、カード支流路１９が合流するようにしており、このようにすることは、遊技島内部が前記カード支流路１９の林立により複雑化することを防止できることから好ましいが、本発明はこれに限定されるものではなく、これらカード支流路１９を後述する硬貨支流路２０と同様に各カードユニット３毎に個別として設けるようにしても良い。

【００３７】また、前記本実施例において用いた紙幣識別ユニット１７は、投入紙幣が１０００円札紙幣であるかの識別を実施し、これ以外の紙幣である場合や正規の紙幣でない場合には、前記紙幣挿入口１０１より該紙幣を返却し、１０００円札紙幣である場合には、該紙幣を一時貯溜して、遊技者により前記入金ボタン１１が操作されることに基づき、該紙幣が背面側の紙幣排出口１０３（図１４参照）より排出され、連設された紙幣支流路１０４（第３支流路）を介して前記紙幣搬送路１００に排出されるようになっている。また、入金ボタンが操作されず、前記中止ボタン１２が操作された場合に投入された紙幣は、前記紙幣挿入口１０１より返却される。また、前記紙幣搬送路１００を挟んで対向する位置にあるカードユニット３に設けられた前記紙幣支流路１０４は、図２に示すように同一の紙幣搬送路１００に接続されている。

【００３８】このように本実施例では、紙幣搬送路１００を挟んで対応する位置にあるカードユニット３に連設されて設けられた紙幣支流路１０４は、同一の紙幣搬送路１００に接続されるようになっており、遊技島１内に設けられる紙幣搬送路１００を最小限の数とすることができ、構造がより簡素なものとなってそのメンテナンス性も向上することができる。

【００３９】また、前記本実施例において用いた硬貨識別ユニット１７は、投入硬貨が５００円硬貨であるか１００円硬貨であるかの識別を実施し、これ以外の硬貨である場合や正規の硬貨でない場合には、返却通路１８を通じて前記返却口１３より該硬貨を返却し、投入硬貨が５００円硬貨であるか１００円硬貨である場合には、該硬貨を一時貯溜して、遊技者により前記入金ボタン１１が操作されることに基づき、これら硬貨が背面側の硬貨排出口１０５（図１４参照）より排出され、連設された硬貨支流路２０中を流下して前記混合搬送路１４に排出されるようになっている。また、入金ボタンが操作されず、前記中止ボタン１２が操作された場合には、投入硬貨は前記返却口１３より返却される。また、前記混合搬送路１４を挟んで対向する位置にあるカードユニット３に設けられた前記硬貨支流路２０（第１支流路）は、図

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２に示すように同一の混合搬送路１４に接続されている。

【００４０】このように本実施例では、混合搬送路１４を挟んで対向する位置にあるカードユニット３に連設されて設けられた硬貨支流路２０並びにカード支流路１９は、同一の混合搬送路１４に接続されるようになっており、遊技島１内に設けられる混合搬送路１４を最小限の数とすることができ、構造がより簡素なものとなってそのメンテナンス性も向上することができる。

【００４１】次いで、前記紙幣搬送路１００の構成を図１５に基づいて説明すると、該紙幣搬送路１００は、内部に紙幣を搬送するコンベアベルト（図示略）が張架され、所定長さとされた複数の搬送ユニット１４４と、各搬送ユニット１４４のコンベアベルトを駆動する駆動モータ１４５が設けられ、各搬送ユニット１４４同士を連結する連結ユニット１４１と、から構成されており、これら搬送ユニット１４４と連結ユニット１４１とが遊技島１の内部にて交互に連結され、島端から島端に延びる１本状の搬送路が形成されるようになっている。

【００４２】また、これら連結ユニット１４１の前後面には、前記紙幣支流路１０４が連結されるようになっており、前記紙幣識別ユニット１０２の紙幣排出口１０３より排出され、紙幣支流路１０４を送り出された紙幣が、該連結ユニット１４１にて前記搬送ユニット１４４内に送り出され、該搬送ユニット１４４内のコンベアベルトの循環により所定島端方向に搬送されるようになっている。

【００４３】また、前記紙幣搬送路１００の搬送方向終端に位置する搬送ユニット１４４の終端部は、図１に示す本発明の分別収容部を構成する紙幣収容部１４６に連結されており、紙幣搬送路１００を搬送されてきた紙幣が回収・収容されるようになっている。

【００４４】また、該紙幣収容部１４６と搬送ユニット１４４の連結箇所には、図１に示すように、紙幣センサ１４７が設けられており、紙幣収容部１４６内に収容される紙幣（本実施例では１０００円札紙幣）の通過が、該紙幣センサ１４７により検出され、該検出に基づく検出信号が制御ボックス１５内部に設けられた後述する制御基板上のセンサ回路およびＩ／Ｏポートを介して計数手段としての制御マイコン（図１３参照）に出力されるようになっている。

【００４５】次いで、本実施例の遊技島１内に設けられた第１本流路である混合搬送路１４の構成を、図５および図６に基づき説明すると、遊技島１の長手方向の両端部には、駆動モータ２４およびタイミングベルト２５により駆動回転する駆動ローラ２６と回転自在とされた架設ローラ２７とが設けられ、該駆動ローラ２６と架設ローラ２７間に無端状の搬送ベルト２３が張架されていて、該搬送ベルト２３が循環移動するように前記駆動ローラ２６により所定方向に駆動されており、その搬送方

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向終端側には、図１０に示すような所定の大きさの孔を有することで前記ＩＣカードと硬貨および硬貨の種別（本実施例では５００円と１００円硬貨）の分別を行うカード分別路３０と硬貨分別路３１とを備えた本発明の分別収容部を構成する硬貨・カード収容部２９が設けられており、図中の２８は前記搬送ベルト２３を支持するガイドローラであって、前記駆動モータ２４は前記制御ボックス１５内部に設けられた後述する制御マイコンによりその動作が制御されている。

【００４６】この搬送ベルト２３周囲には、図６に示すように、該搬送ベルト２３を収容可能とされたコ字状の搬送樋２２が設けられていて、該搬送ベルト２３上を搬送されるＩＣカードや硬貨が落下しないようになっている。

【００４７】該混合搬送路１４と前記カード支流路１９および前記硬貨支流路２０との合流部は、図７に示すようになっており、前記カード支流路１９の終端下部には、速度規制手段としての前記搬送ベルト２３の移動方向（搬送方向）に沿って適宜湾曲された合流ガイド３６が設けられていて、流下するＩＣカードの進行方向を搬送方向に変化させて流下速度を低減することによりＩＣカードに加わる衝撃を緩和するようになっている。また、前記硬貨支流路２０の終端下部には、流下する硬貨が衝突することにより、該硬貨の流下速度を低減して該硬貨の流下によるＩＣカードへの衝撃を軽減する流下速度規制手段としての規制部材４０を有する硬貨合流ユニット３５が設けられている。

【００４８】前記のように、本実施例では速度規制手段として合流ガイド３６を、流下速度規制手段としての規制部材４０を設けているが、本発明はこれに限定されるものではなく、これら速度規制手段および流下速度規制手段としては、ＩＣカードおよび硬貨の流下速度を規制可能なものであれば良い。

【００４９】これら混合搬送路１４に排出されたＩＣカードや各種硬貨は、任意に排出されるために前記搬送ベルト２３上において重なった状態で搬送される場合があることから、本実施例においては図８に示すように、これら重なりを防止する硬貨重なり解消ユニット３７やカード重なり解消ユニット３９および搬送される硬貨の整列を行う整列ユニット３８を、前記硬貨・カード収容部２９の上流部位置に設けている。

【００５０】この硬貨重なり解消ユニット３７は、前記搬送樋２２内部を移動する搬送ベルト２３の上面との間に、５００円硬貨および１００円硬貨が１枚のみ通過可能な所定の間隙が形成されるように配置されたローラ４１を前記搬送方向と逆方向に回転するように駆動する駆動モータ４２を有し、ＩＣカードや他の硬貨に重なった状態の硬貨が、前記ローラ４１に当接して排除されることで、ＩＣカードと硬貨および硬貨と硬貨との重なりが解消されるようになっており、前記搬送樋２２を囲むホ

ルダ３７’により、搬送樋２２の任意の位置に取付け可能とされている。

【００５１】これら重なりが解消された各硬貨は、その下端部と前記搬送ベルト２３の上面との間が、ＩＣカードは当接せずに通過できるが硬貨とは当接可能な所定の間隙を有するように設けられた整列板４３が、当接する硬貨を搬送ベルト２３のほぼ中央部に整列するようにその進路を変更可能な所定の角度を有して設けられた前記整列ユニット３８により、搬送ベルトのほぼ中央部に１列上に整列される。

【００５２】また、該整列ユニット３８の下流部に設けられたカード重なり解消ユニット３９は、前記硬貨重なり解消ユニット３７とほぼ同様の構成とされているが、該カード重なり解消ユニット３９に設けられるロールは、その中央部に前記中央部に整列された硬貨と当接しないような空隙が設けられたフランジローラ４４とされており、該フランジローラ４４の両端部におけるローラ面と搬送ベルト２３との間隙が、ＩＣカードが１枚のみ通過可能な所定の厚みとされており、該フランジローラ４４が駆動モータ４５にて搬送方向と逆方向に駆動回転することにより、重なっている上側のＩＣカードが前記フランジローラ４４と当接して下側のＩＣカードのみがフランジローラ４４を通過するようになり、ＩＣカードの重なりが解消されるようになっている。また、前記整列ユニット３８およびカード重なり解消ユニット３９も前記硬貨重なり解消ユニット３７と同様に、前記搬送樋２２を囲むホルダ３８’，３９’により、搬送樋２２の任意の位置に取付け可能とされているとともに、前記駆動モータ４２および４５は、前記制御ボックス１５内部に設けられた後述する制御マイコンによりその動作が制御されるようになっている。

【００５３】これら各重なりを解消することは、後述するＩＣカードと硬貨との分別並びに硬貨の種別毎の分別を確実にしかも容易に実施できるとともに、その計数を確実に実施できるようになることから好ましいが、本発明はこれに限定されるものではなく、これら重なり防止をいずれか一方としたり、分別方法によっては適宜実施しないようにしても良い。

【００５４】また、本実施例では前記したように、ＩＣカードと硬貨の重なりを個別のカード重なり解消ユニット３９および硬貨重なり解消ユニット３７にて実施しているが、本発明はこれに限定されるものではなく、図１６に示すように、前記搬送ベルト上面と所定の間隙にて配置されるローラ６５を、上下方向にスライド可能とされるとともにスプリング等の付勢部材７０により下方に付勢されたスライド板６９に軸支してテンションローラとし、これを駆動モータ６６によりタイミングベルト６７にて搬送方向と逆方向に回転させるようにして、同一のユニットにて厚みの異なるＩＣカードおよび硬貨の重なりを解消可能とするようにしても良いし、その他の方法によりＩＣカードや硬貨およびＩＣカードと硬貨との重なりを解消するようにしても良い。尚、図中の６８はローラ６５の上下移動に伴うタイミングベルト６７の張りを調整する調整ローラである。

【００５５】このようにして、重なりが解消された硬貨およびＩＣカードは、図９に示す硬貨・カード収容部２９に搬送、供給される。この硬貨・カード収容部２９には、前記搬送ベルト２３の終端部に連設する形にて図１０に示すようなカード分別路３０、および該カード分別路３０の下部位置に硬貨分別路３１が設けられており、該カード分別路３０を通過したＩＣカードが、カードセンサ４７を通過して検出された後、カード回収箱３２に収容され、前記硬貨分別路３１にて分別された５００円硬貨、１００円硬貨は、ガイド３３’，３４’を通じて５００円硬貨回収箱３３および１００円硬貨回収箱３４、に収容され、該収容される各硬貨は、前記ガイド３３’、３４’に設けられた硬貨センサ４８、４９により検出されるようになっている。また、前記カード回収箱３２、５００円硬貨回収箱３３、１００円硬貨回収箱３４は、図１１に示すように前記回収ボックス４内部に取り出し可能に収容されている。

【００５６】前記本実施例に用いた前記カード分別路３０は、図１０に示すように、前記搬送ベルト２３の幅とほぼ同等の傾斜路にて形成されていて、その両側部には摩擦抵抗低減部材としてのテフロン（登録商標）シート５０が貼付されたスライド部が設けられており、前記搬送ベルト２３より供給されたＩＣカードは該スライド部上をスライドして該カード分別路３０を通過するようになっている。また、前記スライド部間の傾斜路中央位置には、１００円および５００円の双方の硬貨が落下可能とされた大きさの孔部４６が設けられており、前記整列ユニット３８にて搬送ベルト２３の中央位置に整列された硬貨は、該孔部４６より落下してカード分別路３０下部に配置された硬貨分別路３１に供給される。

【００５７】この硬貨分別路３１は、所定角度に傾斜された板材５３上に硬貨を分別孔部５２に導く流下ガイド５１ａ、５１ｂが設けられた構成とされているとともに、前記板材５３は、流下する硬貨が流下ガイド５１ｂに当接して流下するように流下ガイド５１ｂ側に傾斜配置されている。また、前記分別孔部５２は、大径の５００円硬貨は落下せずに小径の１００円硬貨のみが落下する大きさとされており、前記孔部４６より落下して硬貨分別路３１に供給された硬貨は、前記流下ガイド５１ｂに当接しながら板材５３上を流下して前記分別孔部５２に供給され、１００円硬貨のみが前記分別孔部５２より落下して５００円硬貨と分別される。

【００５８】前記のように、カード分別路３０において摩擦抵抗低減部材であるテフロンシート５０を貼付することは、該カード分別路３０上にＩＣカードが滞留することが防止されるとともに、該ＩＣカード表面に傷等が

付きにくくなることから好ましいが、本発明は前記テフロンシート５０に限定されるものではなく、例えばナイロンシート等でも良く、これら摩擦抵抗低減部材は、摩擦を低減可能なものであれば特に限定されるものではない。

【００５９】これら分別されたＩＣカードや各種硬貨は、前記カードセンサ４７および硬貨センサ４８、４９により検出され、該検出信号が図１３に示すように、前記制御ボックス１５内部に設けられた制御基板上のセンサ回路およびＩ／Ｏポートを介して計数手段としての制御マイコンに出力され、該制御マイコンにより各回収枚数が加算計数されて図１２に示すように、該制御ボックス１５の内部に設けられた操作パネル上のカード枚数表示器５７、５００円玉枚数表示器５８、１００円玉枚数表示器５８に表示回路を介して表示されるようになっている。

【００６０】また、前記制御ボックス内の制御マイコンには、図１３に示すように、前述の紙幣センサ１４７による１０００円札紙幣の通過に基づく検出信号が前記センサ回路及びＩ／Ｏポートを介して出力されるようになっており、該制御マイコンにより紙幣収容部１４６にて回収された紙幣の回収枚数が加算計数されて、図１２に示すように、前記操作パネル上の１０００円札枚数表示器１４８に表示回路を介して表示されるようになっている。

【００６１】このように、前記各表示器に回収されたＩＣカードの枚数や各種硬貨の枚数、１０００円札紙幣の枚数を表示することは、回収量を逐次確認することが可能となることから好ましく、これら回収枚数等のデータを管理コンピュータ等に通信により収集して各遊技島における回収状況を集中して管理するようにしても良い。また、本実施例では、計数手段として前記制御マイコンを使用しているが、本発明はこれに限定されるものではなく、これら計数手段は前記各センサよりの出力を加算してその回収枚数を計数可能なものであれば特に限定されるものではなく、更に前記ＩＣカードや硬貨の検出を行う各センサも、該ＩＣカードや硬貨を検出可能なものであれば特に限定されるものではない。また、前記本実施例では前記表示器に回収された枚数を表示しているが、これら枚数に硬貨の金額を乗算して金額が表示されるようにしても良い。

【００６２】また、図１２に示すように、前記操作パネルには、前記搬送ベルトを駆動する駆動モータ２４および前記各重なり解消ユニット３７，３９に設けられた駆動モータ４２，４５の運転を開始させる運転ボタン５５や、何らかの異常時に点灯される異常ランプ５６が設けられているとともに、前記各回収箱３２、３３、３４の取り出し時に操作しやすいように前記回収ボックス４内部に露出する形にて前記各駆動モータ２４，４２，４５の運転を停止させる停止ボタン６２および前記運転ボタン５５が操作されることにより点灯して運転状況にあることを報知する運転ランプ６３が設けられており、これら各部は図１３に示すようにＩ／Ｏポートを介して制御マイコンに接続されており、該制御マイコンはＲＯＭに記憶されている制御プログラムに基づき、これら各部の制御並びに前記回収されたＩＣカードや硬貨や紙幣の計数を実施するようになっている。尚、図１２中における６１は電源ブレーカであり、６０は該電源ブレーカにて電源投入された際に点灯する電源ランプである。

【００６３】以上、本実施例のようにすれば、カードユニット３より回収された硬貨、紙幣並びにＩＣカード（プリペイドカード）を紙幣収容部１４６並びに硬貨・カード収容部２９からなる分別収容部に搬送する搬送路が、硬貨とＩＣカードを混在搬送する混合搬送路１４と紙幣のみを搬送する紙幣搬送路１００の個別の搬送路にて形成されていることから、仮に一方に障害が発生しても、他方側による回収が可能であることから、これら障害に伴う遊技場の被害を最小限に抑えることができる。

【００６４】前記各実施例における各要素は、本発明に対して以下のように対応している。

【００６５】本発明の請求項１は、受付けた硬貨を識別してその硬貨価値の大きさに伴う所定の処理を実行するとともに、該識別硬貨を外部に排出する硬貨処理手段（硬貨識別ユニット１７）と、受付けた紙幣を識別してその紙幣価値の大きさに伴う所定の処理を実行するとともに、該識別紙幣を外部に排出する紙幣処理手段（紙幣識別ユニット１０２）と、受付けた記録媒体に記録されている情報を少なくとも読み取ることで該記録情報から特定される有価価値（度数）の大きさを遊技に使用させるための処理（貸出処理）を実行するとともに、所定の回収条件の成立に基づいて前記受付けた記録媒体（ＩＣカード（プリペイドカード））を外部に排出する記録媒体処理手段（ＩＣカードリーダライタ１６）と、を備える遊技用装置（カードユニット３）と、該遊技用装置（カードユニット３）と離れた所定位置に設けられ、前記排出された硬貨、紙幣並びに記録媒体（ＩＣカード（プリペイドカード））を個別に分別して収容する分別収容部（紙幣収容部１４６、硬貨・カード収容部２９）と、前記硬貨処理手段（硬貨識別ユニット１７）より排出される硬貨並びに前記記録媒体処理手段（ＩＣカードリーダライタ１６）より排出される記録媒体（ＩＣカード（プリペイドカード））とを前記分別収容部（硬貨・カード収容部２９）に混在搬送するための第１本流路（混合搬送路１４）と、前記紙幣処理手段（紙幣識別ユニット１０２）より排出される紙幣を前記分別収容部（紙幣収容部１４６）へ搬送するための第２本流路（紙幣搬送路１００）と、前記排出硬貨が前記第１本流路（混合搬送路１４）に合流するように前記硬貨処理手段（硬貨識別ユニット１７）と前記第１本流路（混合搬送路１４）とを繋ぐ第１支流路（硬貨支流路２０）と、前

記排出記録媒体（ＩＣカード（プリペイドカード））が前記第１本流路（混合搬送路１４）に合流するように前記記録媒体処理手段（ＩＣカードリーダライタ１６）と前記第１本流路（混合搬送路１４）とを繋ぐ第２支流路（カード支流路１９）と、前記排出紙幣が前記第２本流路（紙幣搬送路１００）に合流するように前記紙幣処理手段（紙幣識別ユニット１０２）と前記第２本流路（紙幣搬送路１００）とを繋ぐ第３支流路（紙幣支流路１０４）と、から成る。

【００６６】本発明の請求項２は、前記各本流路（混合搬送路１４、紙幣搬送路１００）を挟んで対向する位置に設けられた前記遊技用装置（カードユニット３）の各支流路（硬貨支流路２０、カード支流路１９、紙幣支流路１０４）が、各支流路が対応する同一の本流路（混合搬送路１４、紙幣搬送路１００）に接続されている。

【００６７】本発明の請求項３は、前記第２支流路（カード支流路１９）は、前記排出記録媒体（ＩＣカード（プリペイドカード））が流下可能に形成されるとともに、該記録媒体（ＩＣカード（プリペイドカード））の前記第１本流路（混合搬送路１４）への合流速度を規制する速度規制手段（合流ガイド３６）を具備する。

【００６８】本発明の請求項４は、前記速度規制手段（合流ガイド３６）が、前記第２支流路（カード支流路１９）の前記第１本流路（混合搬送路１４）との合流部形状を前記第１本流路（混合搬送路１４）の搬送方向に沿って適宜湾曲させることで形成されている。

【００６９】本発明の請求項５は、前記第１支流路（硬貨支流路２０）は、前記排出硬貨が流下可能に形成されるとともに、該硬貨の流下速度を規制する流下速度規制手段（硬貨合流ユニット３５）を具備する。

【００７０】本発明の請求項６は、前記流下速度規制手段（硬貨合流ユニット３５）は、前記第１支流路（硬貨支流路２０）の前記第１本流路（混合搬送路１４）との合流部に流下する硬貨が衝突可能に配置された規制部材４０にて形成されている。

【００７１】本発明の請求項７は、前記第１本流路（混合搬送路１４）を挟んで対向する位置に設けられた前記記録媒体処理手段（ＩＣカードリーダライタ１６）に繋がる前記各第２支流路が、合流して１本の第２支流路（カード支流路１９）を形成して前記第１本流路（混合搬送路１４）に接続されている。

【００７２】本発明の請求項８は、前記合流する第２支流路（カード支流路１９）に繋がる前記各記録媒体処理手段（ＩＣカードリーダライタ１６）は互いに信号授受可能に接続され、他方の記録媒体処理手段（ＩＣカードリーダライタ１６）が記録媒体（ＩＣカード（プリペイドカード））の排出処理中である旨の信号を出力している際には、記録媒体（ＩＣカード（プリペイドカード））の排出を実施しない。

【００７３】本発明の請求項９は、前記第１本流路（混合搬送路１４）を搬送される硬貨と記録媒体（ＩＣカード（プリペイドカード））の重なりおよび硬貨同志または記録媒体（ＩＣカード（プリペイドカード））同志の重なりを解消する重なり解消手段（硬貨重なり解消ユニット３７、カード重なり解消ユニット３９）を、前記分別収容部（硬貨・カード収容部２９）の上流部所定位置に設ける。

【００７４】本発明の請求項１０は、前記重なり解消手段（硬貨重なり解消ユニット３７、カード重なり解消ユニット３９）が、前記第１本流路（混合搬送路１４）を構成する搬送路（搬送ベルト２３）と所定の間隙を有して配置され、該搬送路（搬送ベルト２３）の移動方向と反対方向に駆動回転された回転ローラ（ローラ４１、フランジローラ４４）により形成されている。

【００７５】本発明の請求項１１は、前記回転ローラ（ローラ４１、フランジローラ４４）が、前記搬送路（搬送ベルト２３）との間隙が変化可能に付勢されたテンションローラ６５である。

【００７６】本発明の請求項１２は、前記分別収容部（硬貨・カード収容部２９）には、前記記録媒体（ＩＣカード（プリペイドカード））は通過可能であって硬貨は落下する所定の大きさの孔部４６を有する分別路（カード分別路３０）が設けられている。

【００７７】本発明の請求項１３は、前記分別路（カード分別路３０）は、硬貨および記録媒体（ＩＣカード（プリペイドカード））が流下可能な斜路であって、該分別路（カード分別路３０）表面に摩擦抵抗を低減する摩擦抵抗低減部材（テフロンシート５０）が形成されている。

【００７８】本発明の請求項１４は、前記分別路（カード分別路３０）における孔部４６の配置位置に対応する位置に、前記第１本流路（混合搬送路１４）を搬送される硬貨を整列する整列手段（整列ユニット３８）を、前記重なり解消手段（硬貨重なり解消ユニット３７、カード重なり解消ユニット３９）の下流部に有する。

【００７９】本発明の請求項１５は、前記分別路（カード分別路３０）より落下した硬貨を、該硬貨の外径に基づき各種別毎に分別可能な硬貨分別路３１を具備する。

【００８０】本発明の請求項１６は、分別された硬貨、紙幣および記録媒体（ＩＣカード（プリペイドカード））の検出を行うセンサ（カードセンサ４７、硬貨センサ４８、４９、紙幣センサ１４７）を前記分別収容部（紙幣収容部１４６、硬貨・カード収容部２９）に具備するとともに、該センサ（カードセンサ４７、硬貨センサ４８、４９、紙幣センサ１４７）による検出に基づき回収枚数または回収金額を計数する計数手段（制御マイコン）を具備する。

【００８１】本発明の請求項１７は、遊技機（パチンコ機２）が設置された遊技島１に配設されており、前記分別収容部（硬貨・カード収容部２９）が前記遊技島１内

部に収納されて配置されている。

【００８２】尚、前記請求項における硬貨処理手段並びに紙幣処理手段の所定の処理としては、前記実施例における投入硬貨または紙幣に基づく追加入金処理が該当する。

【００８３】また、前記請求項における所定の回収条件としては、前記実施例において残度数が「０」となった際に実施されるようになっているが、前記記録媒体が遊技において獲得された獲得有価価値を記録可能な場合等においては、前記残度数が「０」であるとともに該獲得有価価値が「０」である場合を回収条件とすれば良く、これら回収条件としては記録媒体に記録される情報の内容等に応じて適宜に決定されれば良い。

【００８４】以上、本発明の実施形態を図面により前記実施例にて説明してきたが、本発明はこれら実施例に限定されるものではなく、本発明の主旨を逸脱しない範囲における変更や追加があっても本発明に含まれることは言うまでもない。

【００８５】例えば、前記実施例では、紙幣識別ユニット１６において１０００円札のみを受付けるようになっているが、本発明はこれに限定されるものではなく、２０００円札紙幣や５０００円札紙幣、１００００円札紙幣等その他の紙幣を受付け可能としても良く、更には、これら複数種の紙幣を受付け可能とするようにしても良い。

【００８６】また、前記実施例では混合搬送路１４を搬送ベルト２３と搬送樋２２にて形成しているが、本発明はこれに限定されるものではなく、これら本流路の機構としては、前記記録媒体と貨幣とを混在搬送可能なものであれば良い。

【００８７】また、前記カード支流路２０および硬貨支流路１９とは、記録媒体であるＩＣカードと硬貨とが流下可能なものとされているが、本発明はこれに限定されるものではなく、これら記録媒体や貨幣を機械的に搬送可能なものとしても良い。

【００８８】また、前記実施例では記録媒体であるＩＣカードに有価価値としての度数が記録されるようになっており、これら度数を読み出して貸出処理を実施しているが、本発明はこれに限定されるものではなく、前記ＩＣカードに予め付与されたＩＤ等の識別符号を記録しておき、該識別符号（ＩＤ）に対応付けて度数等の有価価値を管理コンピュータ等に登録し、前記識別符号（ＩＤ）を読み出すことにより、前記管理コンピュータ等に登録されている有価価値を特定するようにしても良いし、セキュリティ向上のためにこれら管理コンピュータとＩＣカードの双方に有価価値を登録、記録しておき、使用時においてこれら双方のデータを比較して不正を防止するようにしても良い。

【００８９】また、前記実施例では記録媒体として非接触のＩＣカード３７を用いているが、本発明はこれに限定されるものではなく、これを接触型のＩＣカードとしたり、磁気カードとしても良いし、更には前記のように識別符号（ＩＤ）を用いて有価価値を特定する場合等には、記録媒体を特定可能な前記識別情報であるＩＤ等の情報を少なくとも読み取り可能に記録できるものであれば良く、例えばバーコード等の所定の情報記録シンボル等が読み取り可能にプリントされた媒体等であっても良い。

【００９０】また、前記実施例では、前記カードユニット３は、プリペイドカードであるＩＣカードが挿入されて貸出処理がなされるようになっているが、本発明はこれに限定されるものではなく、前記ＩＣカードが会員カード等の貯玉可能な記録媒体であって、該貯玉データを再度使用しての遊技が可能とされたのもであっても良い。

【００９１】また、前記実施例では、前記度数表示器５に残度数が存在する際に前記返却ボタン６が操作された場合に、新たな残度数を前記挿入されているＩＣカードに記録するために、記録媒体処理手段として書き込み可能なリーダライタを使用しているが、本発明はこれに限定されるものではなく、これら記録媒体処理手段を読み取り専用のものとしても良い。

【００９２】また、前記実施例では前記硬貨・カード収容部２９における分別手段として、前記各分別路３０、３１を用いているが本発明はこれに限定されるものではなく、これら分別手段としてその他の方法や装置等を用いるようにしても良い。

【００９３】また、前記実施例では、遊技用有価価値の形態として度数を用いているが、本発明はこれに限定されるものではなく、これら遊技用有価価値を遊技者が金銭的に把握できるように金額と一致させるようにしても良いし、更にはこれら遊技用有価価値を所定のポイントや相当するパチンコ玉数やコイン数としても良く、その形態は任意に選択すれば良い。

【００９４】また、前記実施例では、遊技媒体としてパチンコ玉を用いているが、これら遊技媒体をコインや点数、更には後述する画像式のパチンコ機やスロットマシン等における画像にて形成されたパチンコ玉やコイン等としても良く、これら遊技媒体は遊技において使用される媒体であれば、本発明の遊技媒体に含まれるものであり、その形態が限定されるものではない。

【００９５】また、前記実施例では、遊技機として遊技媒体であるパチンコ玉が外部に払い出される通常のパチンコ機２を用いているが、本発明はこれら通常のパチンコ機のみならず、コインを用いて遊技を行うスロットマシンや、パチンコ玉やコインが外部に排出されることなく遊技可能な封入式のパチンコ機やスロットマシン、さらにはこれら遊技媒体を用いずにデータ等により遊技可能な遊技機や、遊技盤やパチンコ玉が画像にて表示される画像式のパチンコ機や、リールが画像にて表示される

画像式のスロットマシンにも適用可能であることはいうまでもなく、これら遊技機が限定されるものではない。

【００９６】

【発明の効果】本発明は次の効果を奏する。

【００９７】（ａ）請求項１の発明によれば、前記遊技用装置より回収された硬貨、紙幣並びに記録媒体を前記分別収容部に搬送する本流路が、硬貨と記録媒体を混在搬送する第１本流路と紙幣のみを搬送する第２本流路の個別の本流路にて形成されているために、仮に一方に障害が発生しても他方側による回収が可能であることから、これら障害に伴う遊技場の被害を最小限に抑えることができる。

【００９８】（ｂ）請求項２の発明によれば、必要となる各本流路の数を最小限とすることができ、装置の構造がより簡素なものとなってそのメンテナンス性も向上できる。

【００９９】（ｃ）請求項３の発明によれば、前記記録媒体が過度の速度にて前記第１本流路に合流して破損することを防止することができる。

【０１００】（ｄ）請求項４の発明によれば、電気的な駆動等を伴うことなく簡便な構造にて前記速度規制手段を形成することができるばかりか、第１本流路への合流において前記記録媒体が第１本流路における搬送に詰まりを生じることもない。

【０１０１】（ｅ）請求項５の発明によれば、前記排出硬貨が過度の速度にて前記第１本流路を搬送される前記記録媒体に衝突することによる該記録媒体の破損を防止できる。

【０１０２】（ｆ）請求項６の発明によれば、電気的な駆動等を伴うことなく簡便な構造にて前記流下速度規制手段を形成することができ、メンテナンス性も向上する。

【０１０３】（ｇ）請求項７の発明によれば、前記第１本流路に接続される前記第２支流路の本数が減少し、設備自体の構造を簡素化できるようになるため、遊技用設備装置のメンテナンス性を向上できる。

【０１０４】（ｈ）請求項８の発明によれば、双方の各記録媒体処理手段より同時に記録媒体が排出されて前記各第２支流路の合流部にて記録媒体が詰まることを防止できる。

【０１０５】（ｉ）請求項９の発明によれば、前記分別収容部における硬貨と記録媒体および硬貨の種別毎の分別を容易にしかも確実に実施できる。

【０１０６】（ｊ）請求項１０の発明によれば、前記所定の間隙を搬送される硬貨や記録媒体の厚みより若干大きくすることにより、該間隙を硬貨や記録媒体が１枚づつ通過するようになって重なりを確実に解消できるばかりか、前記回転ローラが搬送路の移動方向と反対方向に駆動回転することにより、前記間隙に硬貨や記録媒体が詰まりを生じてしまうこともない。

【０１０７】（ｋ）請求項１１の発明によれば、前記所定の間隙を記録媒体または硬貨厚みのいずれか薄い方の厚みより若干大きなものとすることで、これら記録媒体および硬貨双方の重なりを解消することができる。

【０１０８】（ｌ）請求項１２の発明によれば、前記記録媒体と硬貨との分別を簡便な機構にて確実に分別することができる。

【０１０９】（ｍ）請求項１３の発明によれば、分別において記録媒体や硬貨の移動を行う機構を設ける必要がなく、分別収容部の構成を簡素化することが可能となるばかりか、前記摩擦抵抗低減部材を設けることで、該分別路を流下する記録媒体が分別路上に止ることを防止できるとともに、前記記録媒体の表面に傷等がつくことも防止できる。

【０１１０】（ｎ）請求項１４の発明によれば、前記第１本流路を搬送される硬貨が重なることなく整列された状態にて前記分別路における孔部に供給されるようになるため、該搬送硬貨を確実に分別することができる。

【０１１１】（ｏ）請求項１５の発明によれば、前記硬貨が複数の種別存在する場合であっても、これら硬貨を各種別毎に分別して回収することができ、これら硬貨の分別作業に要する労力を省力化できる。

【０１１２】（ｐ）請求項１６の発明によれば、回収された硬貨、紙幣および記録媒体の回収枚数または回収金額を逐次把握することができる。

【０１１３】（ｑ）請求項１７の発明によれば、前記分別収容部が遊技島の外部に突出しないことから、遊技島の美観を向上できるばかりか、前記回収硬貨や回収紙幣が収容される分別収容部の位置を第三者に判りにくくでき、盗難等も防止できる。

【図面の簡単な説明】

【図１】本発明の実施例における遊技島を示す斜視図である。

【図２】本発明の実施例における遊技島の内部構造を示す斜視図である。

【図３】本発明の実施例にて用いたパチンコ機とカードユニットとを示す正面図である。

【図４】本発明の実施例にてカードユニットに用いたＩＣカードリーダライタの構成を示す断面図である。

【図５】本発明の実施例における混合搬送路および硬貨・カード収容部の構成を示す側面模式図である。

【図６】図５における断面Ａ－Ａ断面図である。

【図７】本発明の実施例における混合搬送路と各支流路との合流部を示す斜視図である。

【図８】本発明の実施例における各重なり解消ユニットおよび整列ユニットとを示す斜視図である。

【図９】本発明の実施例における硬貨・カード収容部を示す斜視図である

【図１０】本発明の実施例にて硬貨・カード収容部に用いた各分別路を示す斜視図である。

【図１１】本発明の実施例における回収ボックスの内部状況を示す図である。
【図１２】本発明の実施例における制御ボックス内部に設けられた操作パネルを示す図である。
【図１３】本発明の実施例における各種機器の接続状況を示すブロック図である。
【図１４】本発明の実施例におけるカードユニットと紙幣搬送路並びに混合搬送路との接続状況を示す断面図である。
【図１５】本発明の実施例におけるカードユニットと紙幣搬送路並びに混合搬送路との接続状況を示す断面図である。
【図１６】本発明の実施例における重なり解消手段のその他の形態としてのテンションローラを示す斜視図である。
【符号の説明】

１	遊技島
２	パチンコ機
３	カードユニット（遊技用装置）
４	回収ボックス
５	度数表示器
６	返却ボタン
７	貸出ボタン
８	カード挿入口
９	硬貨投入口
１０	硬貨返却ボタン
１１	入金ボタン
１２	中止ボタン
１３	返却口
１４	混合搬送路（第１本流路）
１５	制御ボックス
１６	ＩＣカードリーダライタ（記録媒体処理手段）
１７	硬貨識別ユニット（硬貨処理手段）
１８	返却通路
１９	カード支流路（第２支流路）
２０	硬貨支流路（第１支流路）
２１	信号ケーブル
２２	搬送樋
２３	搬送ベルト（搬送路）
２４	駆動モータ
２５	タイミングベルト
２６	駆動ローラ
２７	架設ローラ
２８	ガイドローラ
２９	硬貨・カード収容部（分別収容部）
３０	カード分別路（分別路）
３１	硬貨分別路
３２	カード回収箱
３３	５００円硬貨回収箱
３３’	ガイド
３４	１００円硬貨回収箱
３４’	ガイド
３５	硬貨合流ユニット（流下速度規制手段）
３６	合流ガイド（速度規制手段）
３７	硬貨重なり解消ユニット（重なり解消手段）
３７’	ホルダ
３８	整列ユニット（整列手段）
３８’	ホルダ
３９	カード重なり解消ユニット（重なり解消手段）
３９’	ホルダ
４０	規制部材
４１	ローラ（回転ローラ）
４２	駆動モータ
４３	整列板
４４	フランジローラ（回転ローラ）
４５	駆動モータ
４６	孔部
４７	カードセンサ（センサ）
４８	硬貨センサ（５００円）（センサ）
４９	硬貨センサ（１００円）（センサ）
５０	テフロンシート（摩擦抵抗低減部材）
５１ａ	流下ガイド
５１ｂ	流下ガイド
５２	分別孔部
５３	板材
５５	運転ボタン
５６	異常ランプ
５７	カード枚数表示器
５８	５００円玉枚数表示器
５９	１００円玉枚数表示器
６０	電源ランプ
６１	電源ブレーカ
６２	停止ボタン
６３	運転ランプ
６５	ローラ
６６	駆動モータ
６７	タイミングベルト
６８	調整ローラ
６９	スライド板
７０	付勢部材
８６	駆動モータ
８７	搬送ローラ
８８	搬送ローラ
８９	電磁ソレノイド
９０	通信ヘッド
９１	搬送ベルト
９２	制御基板

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９３	駆動モータ
９４	フリーローラ
９５	排出口
９７	挿入センサ
９８	ガイドレール
１００	紙幣搬送路（第２本流路）
１０１	紙幣挿入口
１０２	紙幣識別ユニット（紙幣処理手段）
１０３	紙幣排出口

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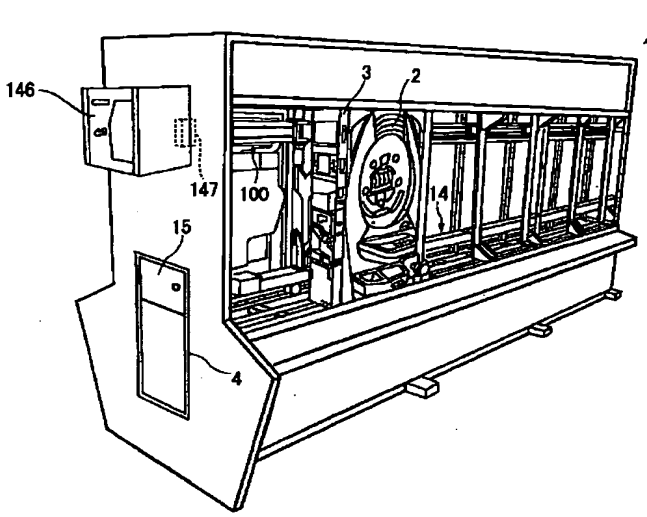
＊１０４	紙幣支流路（第３支流路）
１０５	硬貨排出口
１４１	連結ユニット
１４４	搬送ユニット
１４５	駆動モータ
１４６	紙幣収容部（分別収容部）
１４７	紙幣センサ（センサ）
１４８	１０００円札枚数表示器

＊

【図１】



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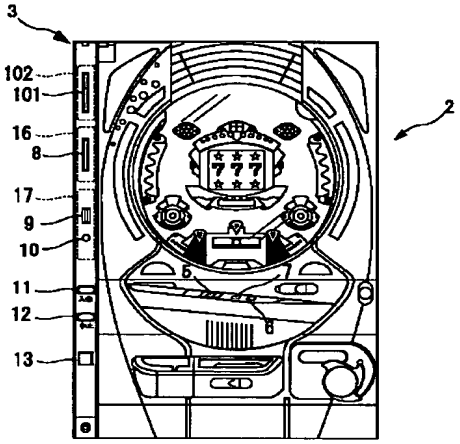

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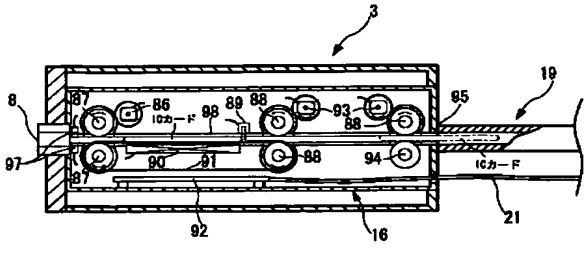

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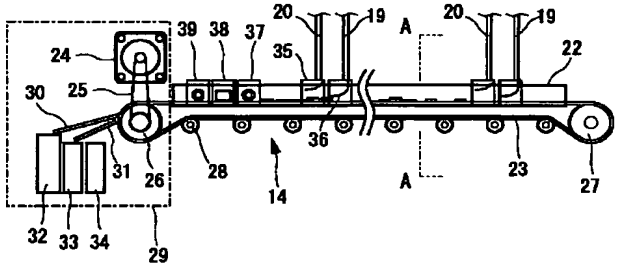

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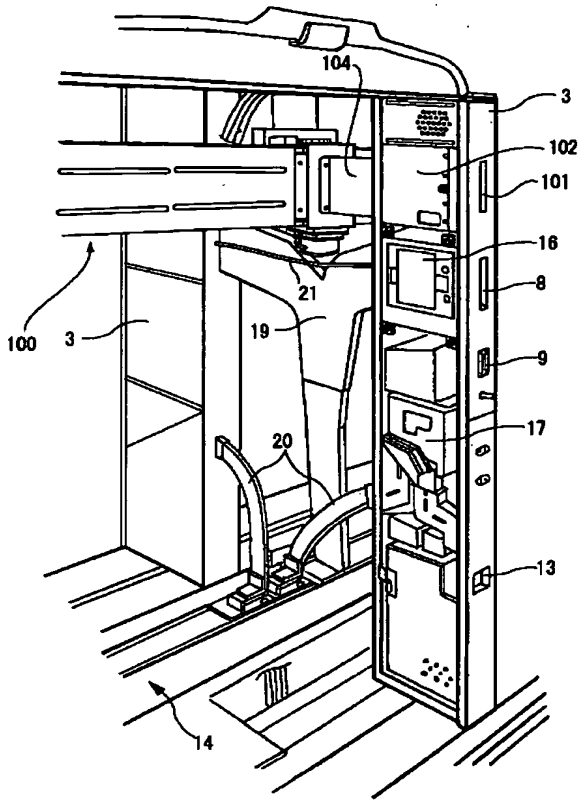

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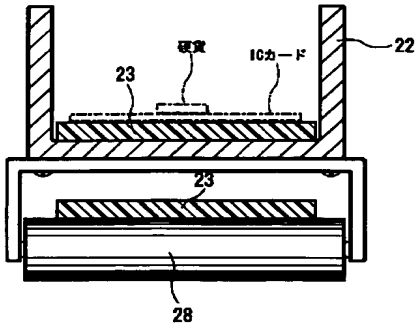

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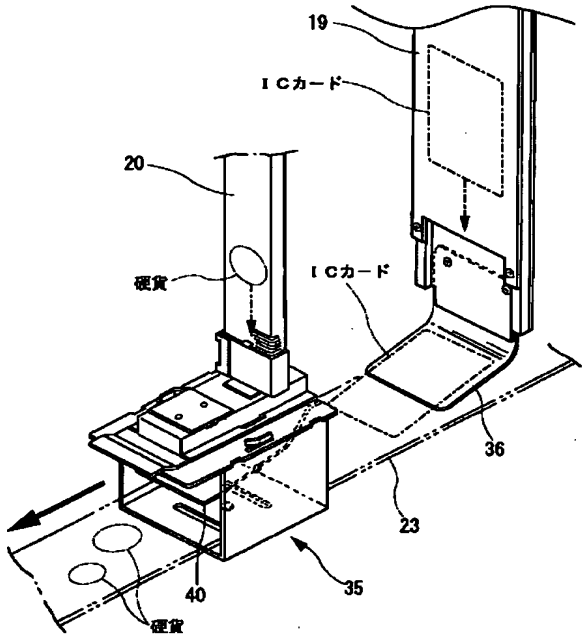

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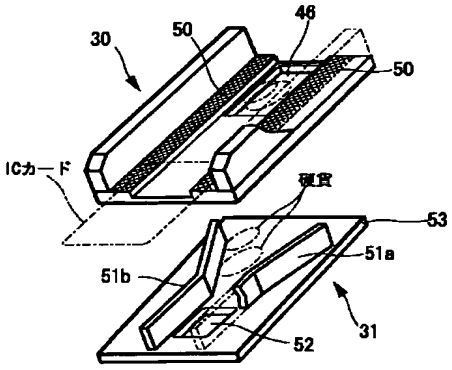

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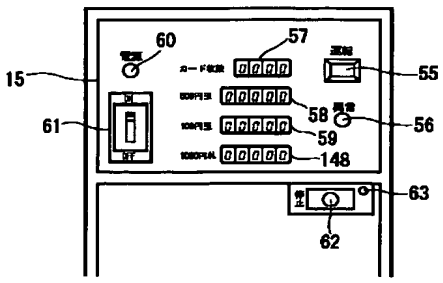

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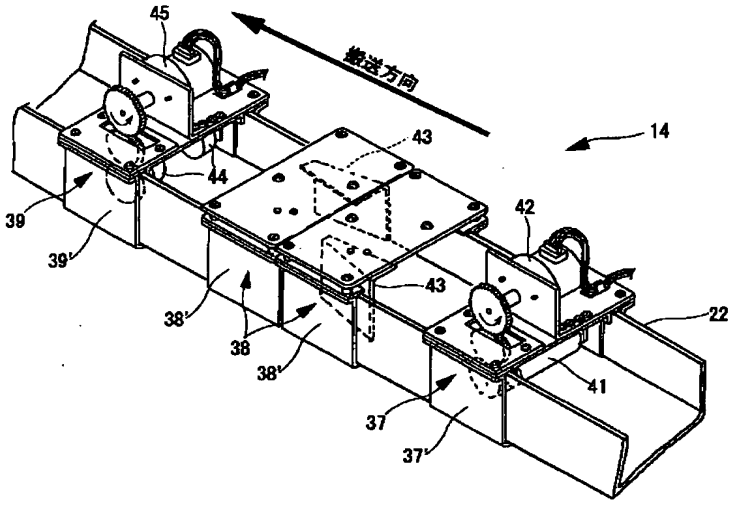

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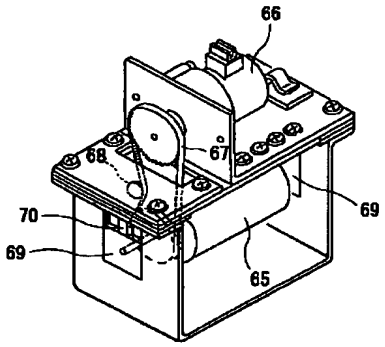

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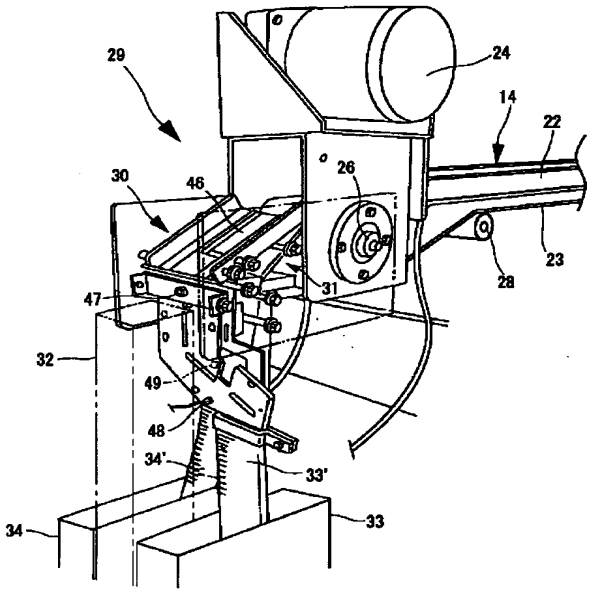

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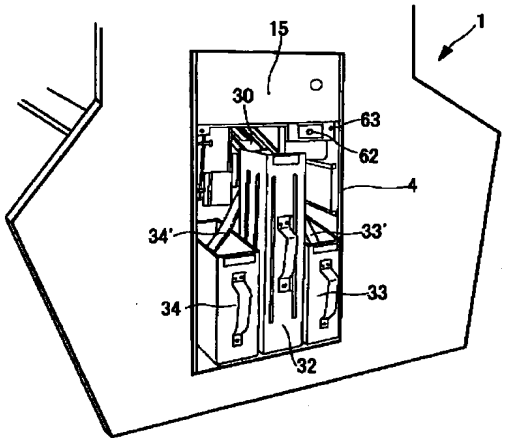

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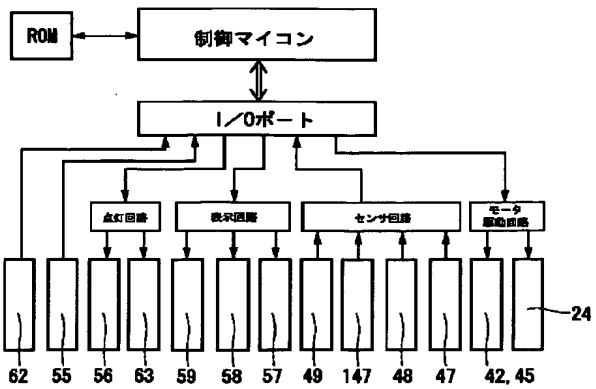

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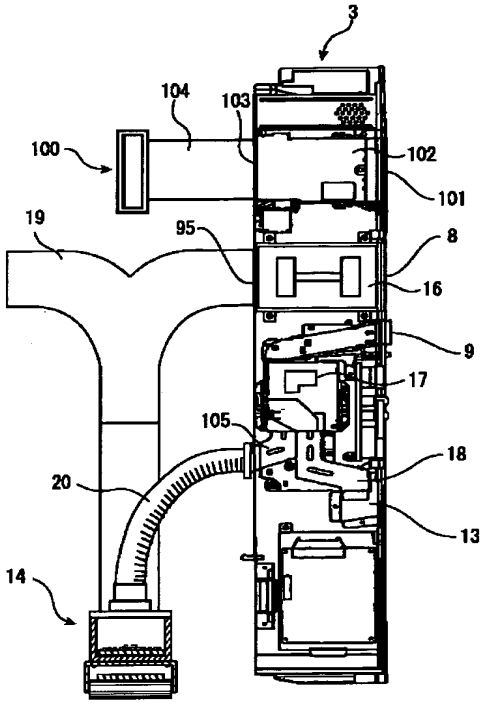

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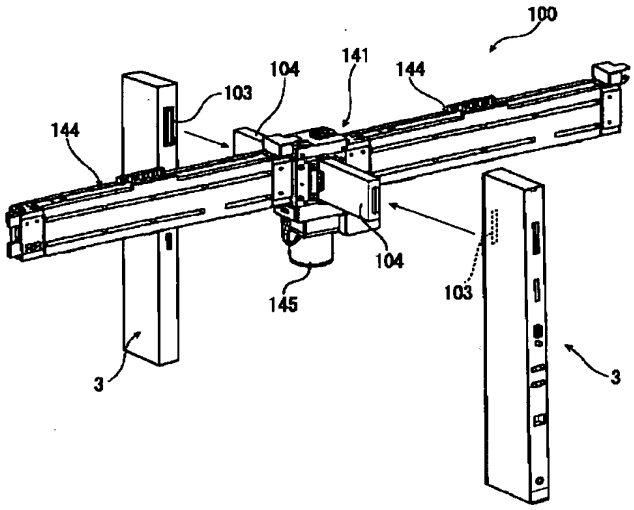

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(51)Int.Cl.'		識別記号	F I		テーマコード'(参考)
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		４１６	Ｇ０７Ｆ	7/08	Ｋ

Ｆターム(参考) 2C005 MB02 MB09 NA06 SA01 SA21
TA03 TA22 TA24
2C088 BA88 BB01 BB13 BB15 BB19
BB20 BB21 BB23 BB25 BB27
BB30 BB36 BC78 BC79 CA08
CA23 EA45
3E001 BA01 BA02 BA05 CA08 DA03
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